

RDO PROCESSING, LLC. FACILITY-WIDE TIER II PERMIT APPLICATION

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Department of Environmental Quality State Air Program

SUBMITTED TO: IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY 1410 NORTH HILTON BOISE, ID 83706

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ORIGINAL

MAY 4, 2006

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OSIGNAL

PROPOSED SCRUBBER

INFORMATION

RDO PROCESSING, LLC. FACILITY-WIDE TIER II PERMIT APPLICATION

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1.0 Introduction and Overview

1.1 Introduction

RDO Processing, LLC. (RDO) processes dehydrated potato products at its plant in Hamer, Idaho. RDO is submitting this Facility-Wide Tier II permit application to operate its main boiler (Boiler No. 1) on high sulfur residual fuel (1.75% or less sulfur by weight) or propane fuel. Currently, the boiler is permitted to burn low sulfur fuel with a sulfur content of 0.5% or less as well as propane, natural gas and diesel fuel. The potato processing plant referenced herein was previously owned by Mr. Blaine Larsen and operated under the facility name Blaine Larsen Farms Dehydration Division (Larsen).

The main boiler at the facility was installed in 1996 and was rated at 115,000 lb/hr steam, or 144 MMBTU/hr. In July 2005, under the Larsen ownership, the boiler was derated to less than 100 MMBTU/hr. For this application, however, RDO is requesting the boiler be permitted under the maximum rating of 150 MMBTU/hr, as RDO will be re-rating the boiler to operate at its original rating configuration. The re-rating is not considered a modification as defined under 40 CFR 60.14 due to the exemption under (e)(2) of the same regulation. Under the exemption an increase in production rate of an existing facility is not considered to be a modification, if the increase can be accomplished without a capital expenditure on the facility. RDO will be rerating the boiler to increase production. However, since all of the necessary equipment is already available at the facility, the re-rating will not require capital expenditure. Furthermore, the re-rating will put the boiler back to its original configuration and heat input capacity. In addition, the boiler has always had the capability to burn #6 fuel, so re-rating would not trigger a modification due to a change in the method of operation. Also, shortly after the change of ownership at the now RDO facility, new NSPS requirements were made final (February 27, 2006). The new regulations apply to sources that commenced construction, reconstruction, or modification after February 28, 2005. RDO will be re-rating the boiler back to pre-February 28, 2005 configuration, and therefore will not be subject to the new standards under the NSPS Subpart Db. At any one time, RDO would like the flexibility to operate its boiler on propane in addition to high sulfur residual fuel.

RDO has several other combustion and process emission sources that will be included with this permit application. The facility-wide potential to emit with the proposed changes is shown below in Table 1-1:

Table 1-1 Potential to Emit

CO	NO_x	SO_2	PM	PM_{10}	VOC
33.42 tpy	232.6 tpy	127.87 tpy	223.71 tpy	223.43 tpy	6.53 tpy

The plant is currently a Title V major source for NO_x and SO₂. With the proposed modifications, RDO will be a Title V major source for PM-10 in addition to NO_x and SO₂. The plant is a PSD minor source.

With the submittal of this facility-wide application, RDO requests that the Idaho Department of Environmental Quality (DEQ) issue a Facility-Wide Tier II Operating Permit for the main boiler and all other equipment at the facility.

1.2 Project Overview

RDO is proposing to operate its boiler on high sulfur residual fuel, diesel fuel, or propane. RDO is currently operating under PTC/ Tier II Permit # P-040524 and Consent Order Case No. E-050009, which took effect on June 27, 2005.

This application is divided into the following sections:

Section 2.0 – Facility Classification: provides general information about the facility, including Section 1 of the PTC application with a certified signature.

Section 3.0 – Process Description: describes the RDO process and combustion sources.

Section 4.0 – Regulatory Applicability Analysis: presents the state and Federal air quality regulations that apply to the proposed modification and, equally important, the regulations that do not apply.

Section 5.0 – Emissions Information and Documentation: presents detailed emission calculations, and explanations of assumptions and conventions used in determining short and long term emission levels.

Section 6.0 – Ambient Air Quality Impact Analysis: presents the ambient air quality impact analysis results demonstrating that the proposed boiler modification and existing sources will not adversely impact the local airshed.

Section 7.0 – Demonstration of Pre-construction Compliance with Toxic Standards: provides an analysis of the potential impact to the ambient air from any toxic air pollutants (TAPs).

Section 8.0 – Proposed Permit Conditions: requested permit conditions to be incorporated into the final permit issued to RDO.

2.0 FACILITY CLASSIFICATION

The RDO facility is not a designated facility, as defined at IDAPA 58.01.01.006.27. The RDO facility is a Title V major source as defined in IDAPA 58.01.01.006.55 for criteria pollutants NO_x and SO_2 . With the proposed modifications, RDO will also be a Title V major source for PM-10.

2.1 Facility Description

RDO is a potato processing company. Their process primarily involves potato dehydration to make potato flakes. The process includes dryers and dehydration lines, which are sources of emissions. Due to the large amount of drying and dehydration of product to approximately 12% moisture, energy considerations are very important to RDO. Descriptions of the process and the proposed boiler modifications are given in Section 3. A process flow diagram is also included in Section 3.

2.2 Facility Location

The facility is located approximately 34 miles north of Idaho Falls on Interstate 15 in Hamer, Idaho. The dehydration plant is located in Section 28, Township 9 North, Range 36 East, at Universal Transverse Mercator (UTM) Zone 12 coordinates of 402.4 km east, 4881.8 km north. The terrain surrounding the plant is fairly flat, gently sloping downward from north to south. Elevated terrain is primarily to the north and east of the facility. A facility site plan is shown in Figure 2-1. The ambient air boundary is shown in Figure 2-2. A facility location map is shown in Figure 2-3.

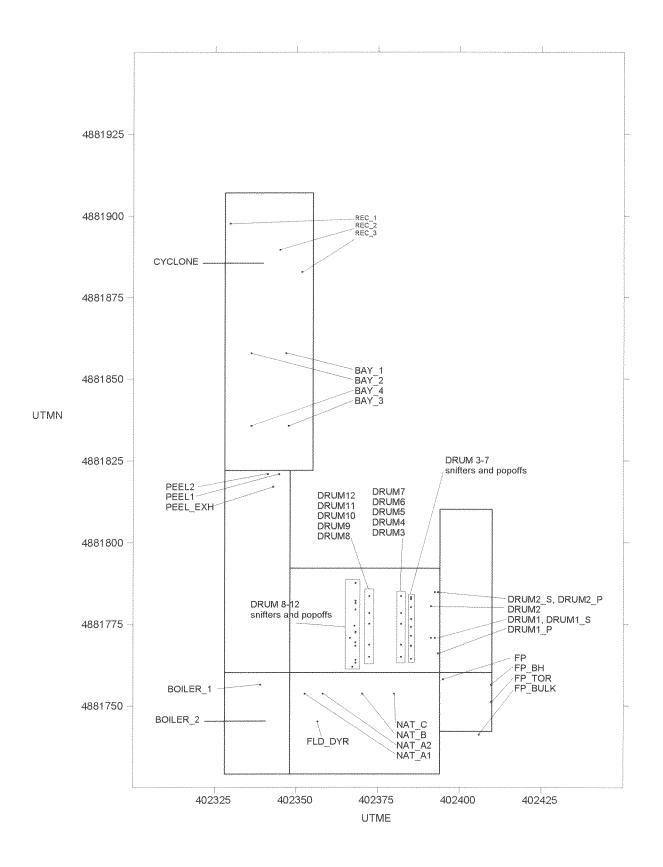


Figure 2-1 Facility Site Plan

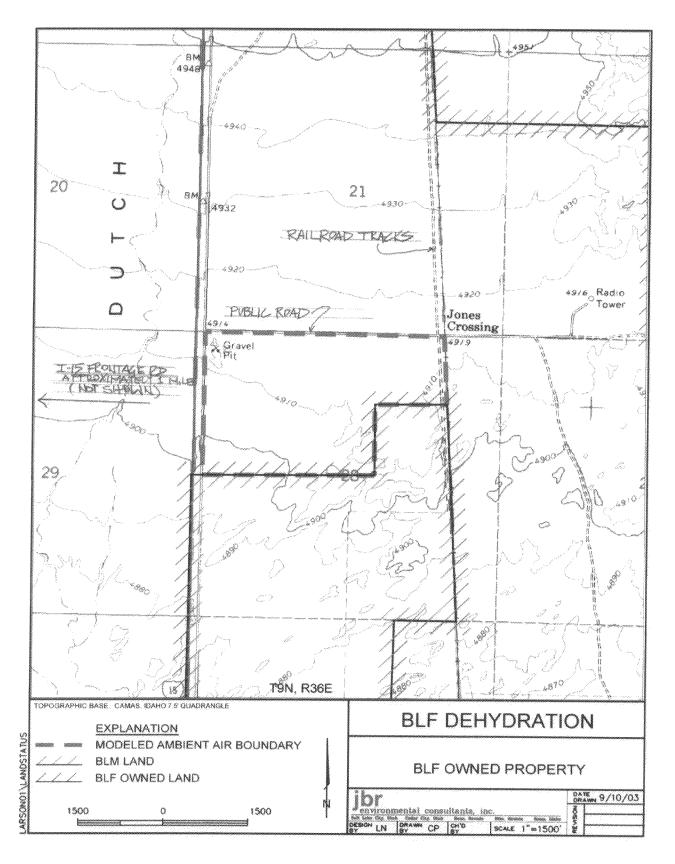


Figure 2-2 Ambient Air Boundary

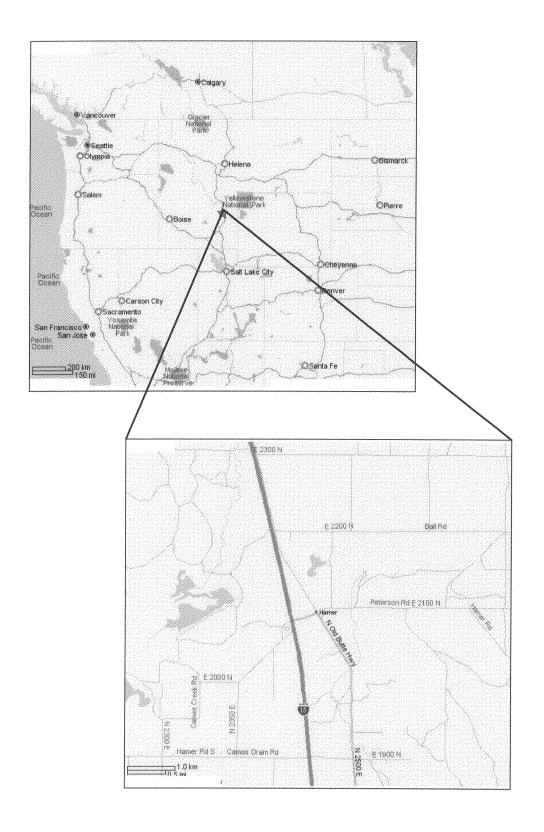


Figure 2-3 Facility Location Map

2.3 IDEQ General Facility Information Form

This subsection contains the required IDEQ General Information Form, Section 1 for a PTC application, on the following page.



STATE OF IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

(IDAPA 58.01.01.200-.225)

SECTION 1: INFORMATION	GENERAL							
1. COMPANY AND DIVIS	ION NAME RDO	Processing,	LLC					
2. MAILING ADDRESS:	P.O. Box 265	COUNTY:	Clark		NUMBER OF FULL-TIME EMPLOYEES: 250			
3. CITY: Dubois	STATE: Idaho	ZIP CODE:	83423		TELEPHONE NUMBER: (208) 374-5600			
4. PERSON TO CONTAC	T: Jan Nel	# Of the second		TITLE:	Plant Manager			
					JTM COORDINATES IF KNOWN): Section 28, TM) Zone 12 coordinates of 402.4 km east, 4881.8			
6. GENERAL NATURE O	F BUSINESS AND	KINDS OF P	RODUCT	S: Pota	to Dehydration			
	7. REASON FOR APPLICATION 8. LIST ALL FACILITIES WITHIN THE STATE THAT ARE UNDER YOUR CONTROL OR UNDER COMMON CONTROL AND HAVE EMISSIONS TO THE AIR. IF NONE, SO STATE. permit to construct a new facility							
permit to modify an opermit number: Consent Order Case	T2-050511 and	NA!	ME		LOCATION			
permit to construct a at an existing facility								
change of owner or l permit number current owner	'							
9. ESTIMATED CONSTRUCTION START DATE: ESTIMATED COMPLETION DATE: June 1, 2006. RDO intends to obtain a pre-permit construction approval.								
10. NAME AND TITLE OF	OWNER OR RESP	PONSIBLE O	FFICIAL	Jan Ne	l, Plant Manager			
11. In accordance with ID/ certify based on informati true, accurate, and compl	on and belief former	d after reaso	Control on able inq	of Air Pollu uiry, the st	tion in Idaho), 1 Jan Nel catements and information in the document are			

3.0 PROCESS DESCRIPTION

3.1 General Discussion

The process used to produce dehydrated potato product involves steam peeling, dryers, flake lines, baghouses for product recovery, and other equipment. Boilers provide the steam necessary for drying the product. Two 30,000 gallon tanks are installed to store the fuel required for the boilers. RDO is planning to install a third 30,000 gallon fuel storage tank. For the purposes of estimating emissions, all three tanks were considered.

The emission sources and their respective installation/modification dates are presented in Table 3-1:

Table 3-1 Major Process Equipment

EQUIPMENT	INSTALLATION/MODIFICATION
	DATE
Boiler No. 1	1996
Boiler No. 2	2004
Cyclone	2004
Flaker 1	1997
Flaker 2	1997
Flaker 3	1997
Flaker 4	1997
Flaker 5	1997
Flaker 6	1997
Flaker 7	1997
Flaker 8	1997
Flaker 9	1997
Flaker 10	1997
Flaker 11	1997
Flaker 12	1997
Fluidized Bed Dryer	1998
National Dryer Fan A1	1990
National Dryer Fan A2	1990
National Dryer Fan B	1990
National Dryer Fan C	1990
Flake Packaging Bulk Line	1989
Flake Packaging	1989
Flake Packaging Torit	1996
Flake Packaging Drum Negative Air Baghouse	1997
Propane Heaters 1	1989
Propane Heaters 2	1989
Propane Heaters 3	1989
30,000 gal Fuel Tank	2003
30,000 gal Fuel Tank	2003
30,000 gal Fuel Tank	proposed

Note: Steam peelers and cookers are determined not to be emission sources.

3.2 Discussion of the Dehydration Process

RDO is a potato processing company. Their process primarily involves potato dehydration to make potato flakes. The process includes dryers and dehydration lines, which are also sources of emissions. Descriptions of the potato process is given below (discussion of the boiler modification follows this subsection).

Initially potatoes are received at the plant on trucks and are unloaded into one of six receiving bays. After much of the rock and silt are removed, the potatoes enter a steam peeler, where they are exposed to steam for a brief period of time. This loosens the potato peel prior to the washing stage. The steam is exhausted and quenched in a water bath. The peeling is fully removed by dry and wet scrubbing which is done by revolving brushes and can include water sprays. The potatoes are then trimmed, sized, and sorted.

In the flake line, the potatoes are sent to a pre-cooker, which blanches the initially raw potatoes. This operation gelatinizes the starch. Potatoes are then cooled to retrograde the starch gelatinization for better texture and taste. The potatoes are water transported into cookers where they are exposed to steam to be fully cooked. The potatoes are riced, or forced through slots and broken into smaller pieces like mash, and then added to the dehydration rolls.

The mashed/riced potatoes are spread across the face of the drum dryers with applicator rolls. Only whole cells stick to the drum. The steam drum dryer rotates and drives the moisture from the potato cells. The dryers are heated with steam from the boiler. The dried potato sheet is cut off the drum and broken into smaller pieces. Good flake goes to mills where it is cut into desired particle size and density (as required by customers) and air transported to product separation baghouses. The flake is then bagged, placed into a warehouse for storage, or is transferred to a bulk line for storage in silos.

In the agglomerated line, potato flakes mixed with flavorings enter a fluidized bed dryer and then enter a retail line. Product is bagged. The crush line material comes from National Dryer product.

3.3 Equipment Descriptions

Steam Peeler: Consists of a rotating vessel which is batch filled with potatoes and sealed steam is applied to the vessel for about 15 sec. at 250psi and the steam on the potato. Potatoes are then dumped into a hopper and augured to scrubbers that remove the peel.

Pre-cooker/Blancher: Consists of a continuous screw in a water vessel that is heated by steam and the water circulated to heat potatoes to gelatinize starch.

Cooker: Consists of a twin screw in a vessel where the potatoes are steam heated and cooked until soft.

Drum Dryer: Consists of a steam heated rotating drum and applicator rolls. The mashed potatoes are applied evenly across the heated drum by the applicator and the dry flake is removed from the back of the drum by a doctor knife.

Flakers: Flakers are for the conversion of materials from a liquid state to solid flakes in a single operation. This change of state is achieved by applying a film of the liquid material to be flaked to the outer surface of a horizontal rotating drum, which is cooled internally by means of water. As the drum rotates, the liquid film solidifies and is subsequently removed from the drum surface by a doctor blade or knife.

Multi-Stage Dryers: Incorporates a series of single-stage, multizone units. It is ideal for products with a high incoming moisture content that would benefit from reorientation through transfer between conveyor belts at the ideal time in their drying cycle. Product bed depth and air flow vary between stages based on the product's drying curve. Discrete zones allow both air flow and temperature to be independently altered to maintain proper process parameters.

Fluidized Bed Dryer: Converts a bed of solid potato flakes into an expanded, suspended mass that has many properties of a liquid. The fluidized dryer uses natural gas combustion gases as the suspension medium. The heat from the combustion gases dries and mixes the flakes and flavorings before being bagged.

3.4 Boiler Adjustments

RDO is proposing to operate the main boiler at the facility on high sulfur residual fuel and install a scrubber to control SO₂ emission rates. The maximum fuel consumption for the desired fuels and the proposed re-rating is shown in Table 3-2 below:

Table 3-2 Boiler Operation

Fuel	Maximum Consumption
Propane	1596 gal/hr
Residual Oil (≤1.75% Sulfur)	1041 gal/hr

For the proposed scrubber, RDO has elected to use a scrubber design by Innovative Scrubber Solutions, Inc. The scrubber design will use a lime solution to remove the SO₂ from the boiler exhaust gas. The design specifications and drawing are included as Appendix B. Innovative Scrubber Solutions, Inc. guarantees an SO₂ removal efficiency of at least 90%, with an instantaneous emission of not more than 0.2 lb/MMBtu of heat input. In addition to reducing the SO₂ emissions from the boiler, the engineers at Innovative Scrubber Solutions, Inc. also assert that a 25% reduction in PM emissions will be occur. At this PM removal efficiency, RDO will demonstrate compliance with the NSPS for PM of 0.10 lb/MMBtu; source testing will verify compliance with the standard. This reduction potential was not applied in determining potential to emit (PTE) PM, only for demonstrating compliance with the NSPS for PM.

3.5 Process Flow Diagram

Figure 3-1 shows the process flow diagram for the flaker and agglomeration processes.

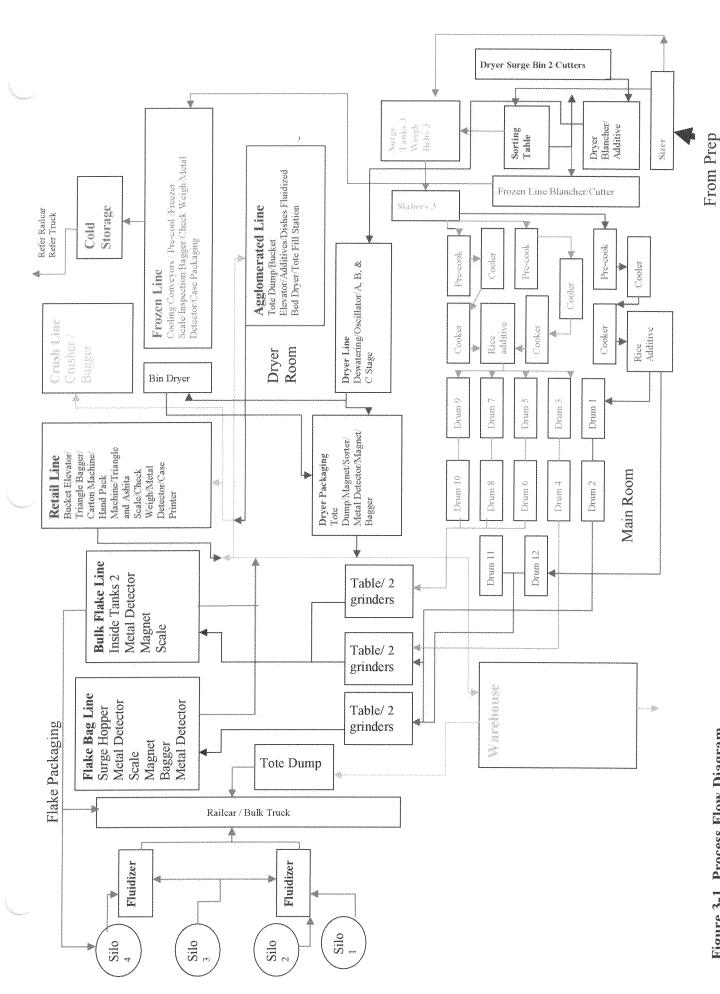


Figure 3-1 Process Flow Diagram

Room

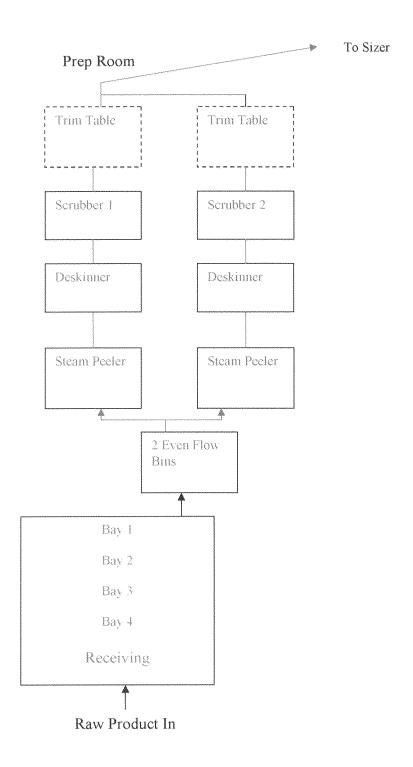


Figure 3-1 Process Flow Diagram

3.6 Permit Application Forms

This subsection contains the following sections of the IDEQ PTC Application Forms:

- Section 2 Fuel Burning Equipment
- Section 3 Process and Manufacturing Equipment

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERE	NCE NUMBER	unangan mengungkan dinahari agian ter	on in the second se							
Boiler #1										
2. EQUIPMENT MANUFA	CTURER AND	3. RAT	ED HEAT	4. BUR	NER UNIT		5. HEAT USA	ЭE	oin estates in minute in commission	ogustosoovent
MODEL NUMBER		INPUT	CAPACITY	TYPE (use code) % process % space h			ace heat	ting		
Wabash Power Equipment		150 MM	IBTU/hr primai	y 9. Horiz	ontally fired		100 % process			
NS-F-89-ECON, Serial No.	U-3400					ł				
6. FUEL DATA	m :		I	9. POLLUTION C						
	Primary		Secondary			1	Secondary			
fuel type (use code)	2. #6 Residual F	uel Oil	5. Propane	type	anatomistation		Same as prim	ary		
percent sulfur	1.75 %		0.15 gr/dscf	manufacturer		ovative Scru utions, Inc.	abber			
percent ash	0.05%		0%	model number						
percent nitrogen	0.15%		0%	% efficiency	***************************************	90%				
percent carbon	88.6%		81.8%		1000000000000	seconomica en	manachi in comming comming a china birina	and an artist of the second		
percent hydrogen	10.4%		18.2%	MANUFACTURE	R GUARANT	EED_x	yes	no		
percent moisture	0.05%	***************************************	0%	(Include guarante	e) included	in Append	ix B			
heat content	150,000 BTU	/or ml	94,000	for wet scrubb	ers:					
		/gai	BTU/gal							
(percent by weight				1	9					
	All in % weight ex	cept sul	tur for propane	pressure o	lrop	inches of v	water			
7. FUEL CONSUMPTION			***************************************	erana .						
	Primary	Seco	ndary	for baghouse:						
Maximum amount	*	1	•	air/cloth ra	itio					
burned/hour	1041 gal/hr	1	1596 gal/hr	pressure o	Irop	inches	of water			
Normal amount										
burned/year	9,119,160 gal/y	/r 13.9	980,960 gal/yr	10. STACK OR E	XHAUST DA	ATA				
The section of the se										
Fly ash reinjection?	yes no <u>X</u>	n.a.				Stack ID	BOILER	_1		
						Height	34	92 f	t	
8. OPERATING SCHEDUI	For				Exit	diameter	6	65 f	t	
					Exit ga	is volume	42,9	51 a	acfm	
Hours per day		24			Exit gas ter	nperature -	<u> </u>	85 I	-	
Days per week	washing constitution of the constitution of th	7				And				
Weeks per year	mga-process and an analysis of the second analysis of the second and an analysis of the second analysis of the second and an analysis of the second and an analysis of the second and an a	52		(Include a se	parate page	for each s	tack if multiple	stac	ks or vei	nts are used)
11. CRITERIA POLLUTAN	IT ESTIMATED EMI	SSIONS	(<u>Maximum</u> of	all fuels is shown be	elow)					
Particulates	21.66 lb/hr	94.85	tons/yr	Nitrogen o	xides	48.93 lb/l	hr 214	30	tons/yr	
Sulfur dioxide	28.60 lb/hr	125.27	tons/yr	Volatile or compound		1.33 lb/l	hr 5	84	tons/yr	guarge-re-e-ge-re-ge-proper
Carbon monoxide	5.21 lb/hr	22.80	tons/yr		dupters					
		(11		tions and assumption	ns)				*************************************	
FUEL CODES				BURNER CODES			****			
			 Spreader stoker Chain or traveling 	n arate		7. Unde 8. Tang				
3. Wood (specify chips, bark, shavings			 Hand fired 	3 31.01.0		9. Horiz				
sander dust)				4. Caraltana 5					*	
4. Coal (specify bituminous	s anthracite lignite)			 Cyclone furnace Wet bottom (pulv 	erized coal)		10. Othe	r (S)	oeciry)	
5. Other (specify) Propane				5. Wet bottom (pulverized coal) 6. Dry bottom (pulverized coal)						

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

Bollst #2 2. EQUIPMENT MANUFACTURER AND MODEL NUMBER Superior, Model 6-5-1000-S150-GP INPUT CAPACITY 6-7 MIMBTU/hr I	1. APPLICANT'S REFERENCE	E NUMBER	***************************************					
2. EQUIPMENT MANUFACTURER AND MODEL NUMBER PROJECTION OF THE Primary Supports. Model 5-1000-S150-GP (6.7 MMSTUrn) 6. FUEL DATA Frimary Secondary fuel type (use code)* 1. Natural gas percent suffur 0.003 % percent suffur 0.003 % percent nathor 1.8% percent nathor 73.6% percent nat								
MODEL NUMBER Superior, Model 8-5-1000-S150-GP 6. FUEL DATA Primary fuel type (use code)* 1. Natural Gas percent suffur 0.003 % percent nitrogen percent hydrogen percent hydro		URER AND	3. R/	ATED HEAT	4. BURNER UNIT		. HEAT USAGE	
Superior, Model 6-5-1000-S150-GP			1		TYPE (use code)	9	6 process % sp	ace heating
Primary Secondary fuel type (use code)* 1. Natural Gas percent sulfur percent ash		50-GP	1					
Primary Secondary fuel type (use code)* 1. Natural Gas percent sulfur percent ash			1			1		
fuel type (use code)* percent sulfur 0.003 % percent nitrogen percent moisture (percent by weight or volume) All in % weight except sulfur for propane All in % extended su	6. FUEL DATA				9. POLLUTION CONTROL E	QUIPMENT		
percent sulfur percent ash 0.0% percent hydrogen percent carbon percent hydrogen percent moisture heat confent fipercent by weight or volume) All in % weight except sulfur for propane. 7. FUEL CONSUMPTION Primary Maximum amount burned/hour burned/hour hourned/year Fiy ash reinjection? Hours per day Days per week 7. Weeks per year 10. STACK OR EXHAUST DATA Exit gas volume 2,880 acfm Exit gas temperature 10. STACK OR Exhaust Exit diameter 1. 166 ft Exit gas volume 2,880 acfm 1. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates 0.05 lb/hr 0.21 tons/yr Sulfur dioxide 0.044 lb/hr 0.02 tons/yr Volatina lgas 1. Spreader stoker FUEL CODES 1. Natural gas 1. Spreader stoker 7. Underfeed stoker Carbon monoxide 0.54 lb/hr 2.35 tons/yr FUEL CODES 1. Natural gas 2. Chain or traveling grate 4. Cyclone furnace 5. We bottom (purverzed coal) 7. Underfeed stoker 7. Underfeed stoker 7. Underfeed stoker 8. Tangentially fired 9. Horizontally fired 9. Horizontally fired 9. Horizontally fired 9. Horizontally fired 1. Swelpt buttominous, anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous, anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out of traveling grate 9. Well out out of traveling grate 1. Swelpt buttominous anthracite, lignite) 9. Well out out of the firmace 1. Swelpt buttominous anthracite, lignite) 9. Well out out of the firmace 1. Swelpt buttominous anthracite, lignite) 9. Well out out of the firmace 1. Swelpt buttominous anthracite, lignite) 9. Well out		Primary		Secondary		mary S	Secondary	
percent nitrogen 1.8%	fuel type (use code)*	1. Natural Ga	ıs		type			
percent nitrogen 1.8%	percent sulfur	0.003 %						
percent carbon percent thydrogen 24.3%	percent ash	0.0%						
percent hydrogen 24.3% MANUFACTURER GUARANTEED yes no final factority for the percent moisture for wet scrubbers: water flow gpm for wet scrubbers water flow gpm for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water for baghouse: air/	percent nitrogen	1.8%			% efficiency		vitalinin kalantahin kalantahin kalantahin kan kalantah kan kalantah kalantahin kalantahin kalantahin kalantah	
percent moisture heat content (percent by weight or volume) All in % weight except sulfur for propane. 7. FUEL CONSUMPTION Primary Secondary Maximum amount burned/hour Normal amount burned/year 55.9 MMsct/yr Fly ash reinjection?yesno _X _ n.a. 8. OPERATING SCHEDULE Hours per day Days per week 7 Weeks per year 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates 0.05 lb/hr 0.21 tons/yr Sulfur dioxide 0.04 lb/hr 0.02 tons/yr Carbon monoxide 0.54 lb/hr 0.25 tons/yr (Include calculations and assumptions) FUEL CODES 1. Natural gas 1. Natural gas 2. Chain or traveling grate 3. Hond fred 9. Horizonfally fired 3. Hond fred 9. Horizonfally fired 4. Cool (specify chips, bark, shavings 3. Hond fred 4. Cool (specify bituminous, anthracite, lignite) 5. Wet bottom (pulverized coal)	percent carbon	73.6%						
heat content (percent by weight or volume) All in % weight except sulfur for propane. 7. FUEL CONSUMPTION Primary Normal amount burned/hour Normal amount burned/year Fly ash reinjection? Days per week Toward Weeks per year 10. STACK OR EXHAUST DATA Exit gas volume Exit gas volume Exit gas volume 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates Understand by the funding as a compounds 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates Understand by the funding as a compounds 11. Natural gas 11. Natural gas 2. Oil (specify ASTM grade number) 13. Wood (specify histminous, anthracite, lignite) For wet scrubbers: water flowgpm pressure drop inches of water for baghouse: air/cloth ratio pressure drop inches of water 10. STACK OR EXHAUST DATA Stack ID	percent hydrogen	24.3%				TEED	yes no	
Coal (specify bituminous, anthracite, lignite) Coal (specify bituminous, anthracit	percent moisture	0.0%			(Include guarantee)			
All in % weight except sulfur for propane. 7. FUEL CONSUMPTION Primary Secondary for baghouse: air/cloth ratio pressure drop inches of water Maximum amount burned/hour 6,381 scf/hr 10. STACK OR EXHAUST DATA Fly ash reinjection? yes no X n.a. Stack ID BOILER_2 Height 41.42 tt 8. OPERATING SCHEDULE Exit diameter 1.66 ft Exit gas volume 2,880 acfm Hours per day 24 Exit gas temperature 355 F Days per week 7 (Include a separate page for each stack if multiple stacks or vents are used) 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates 0.05 Ib/hr 0.21 tons/yr Nitrogen oxides 0.64 Ib/hr 0.15 tons/yr Sulfur dioxide 0.004 Ib/hr 0.22 tons/yr Volatile organic compounds Carbon monoxide 0.54 Ib/hr 2.35 tons/yr Carbon monoxide 0.54 Ib/hr 2.35 tons/yr (Include calculations and assumptions) FUEL CODES Spreader stoker 7. Underfeed stoker 2. Chain or traveling grate 8. Tangentially fired 3. Wood (specify ASTM grade number) 2. Chain or traveling grate 8. Tangentially fired 3. Hand fired 9. Horizontally fired 4. Cyclone furnace 5. Wet bottom (pulverized coal)			of		for wet scrubbers:			
7. FUEL CONSUMPTION Primary Secondary for baghouse: air/cloth ratio pressure dropinches of water Normal amount burned/year 55.9 MMsct/yr Fly ash reinjection?yesnoXn.a. 8. OPERATING SCHEDULE Hours per day24	(percent by weight or	volume)						
Primary Secondary for baghouse: air/cloth ratio pressure drop inches of water		All in % weight exc	ept sulf	fur for propane	pressure drop	inches of w	ater	
Primary Secondary for baghouse: air/cloth ratio pressure drop inches of water	7 FUEL CONSUMPTION		Mark finish finish kindamanananananananananananananananananan		-			
Maximum amount burned/hour Normal amount burned/year 55.9 MMscf/yr Fly ash reinjection?yes no _X _ n.a. Stack ID	7. 1000000000000000000000000000000000000	Primary	Seco	ndarv	for baghouse:			
burned/hour Normal amount burned/year 55.9 MMscf/yr 10. STACK OR EXHAUST DATA Fly ash reinjection?yesno _Xn.a. Stack IDHeight	Maximum amount		1					
Normal amount burned/year 55.9 MMscf/yr 10. STACK OR EXHAUST DATA Fly ash reinjection?yesno _Xn.a. Stack IDBOILER_2		6,381 scf/hr	1		pressure drop	inches	of water	
Fly ash reinjection?yesno _Xn.a. Stack IDBOILER_2Height				A STATE OF THE STA				
Fly ash reinjection?yesno _Xn.a. Stack ID		55.9 MMscf/vr			10. STACK OR EXHAUST DA	ATA		
Height 41.42 ft	, , , , , , , , , , , , , , , , , , , ,							
8. OPERATING SCHEDULE Bull to the compounds Carbon monoxide	Fly ash reinjection?	yes no _X	n.a.			Stack ID	BOILER_2	
Exit gas volume 2,880 acfm Hours per day 24 Exit gas temperature 355 F Days per week 77 Weeks per year 52 (Include a separate page for each stack if multiple stacks or vents are used) 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates 0.05 lb/hr 0.21 tons/yr Nitrogen oxides 0.64 lb/hr 2.79 tons/yr Sulfur dioxide 0.004 lb/hr 0.02 tons/yr Volatile organic compounds Carbon monoxide 0.54 lb/hr 2.35 tons/yr (Include calculations and assumptions) FUEL CODES 1. Natural gas 2. Oil (specify ASTM grade number) 2. Chain or traveling grate 3. Hand fired 9. Horizontally fired sander dust) 4. Cyclone furnace 10. Other (specify) 4. Coal (specify bituminous, anthracite, lignite)						Height _	41.42	t
Hours per day Days per week To Weeks per year To	8. OPERATING SCHEDULE	The state of the s			Exit	t diameter	1.66 1	ť
Days per week Weeks per year 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates 0.05 lb/hr 0.21 tons/yr Sulfur dioxide 0.004 lb/hr 0.02 tons/yr Volatile organic compounds Carbon monoxide 0.54 lb/hr 2.35 tons/yr (Include calculations and assumptions) FUEL CODES 1. Natural gas 2. Oil (specify ASTM grade number) 3. Wood (specify chips, bark, shavings sander dust) 4. Coal (specify bituminous, anthracite, lignite) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used) (Include a separate page for each stack if multiple stacks or vents are used)					Exit ga	as volume	2,880	acfm
CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates	Hours per day		24		Exit gas ter	mperature	355	reas des
11. CRITERIA POLLUTANT ESTIMATED EMISSIONS (Maximum of all fuels is shown below) Particulates 0.05 lb/hr 0.21 tons/yr Nitrogen oxides 0.64 lb/hr 2.79 tons/yr Sulfur dioxide 0.004 lb/hr 0.02 tons/yr Volatile organic compounds Carbon monoxide 0.54 lb/hr 2.35 tons/yr Carbon monoxide 0.54 lb/hr 2.35 tons/yr	Days per week	AND THE RESIDENCE OF THE PARTY	7			Andreals		
Particulates 0.05 lb/hr 0.21 tons/yr Nitrogen oxides 0.64 lb/hr 2.79 tons/yr Sulfur dioxide 0.004 lb/hr 0.02 tons/yr Volatile organic compounds Carbon monoxide 0.54 lb/hr 2.35 tons/yr (Include calculations and assumptions) FUEL CODES 1. Natural gas 1. Spreader stoker 7. Underfeed stoker 2. Oil (specify ASTM grade number) 2. Chain or traveling grate 3. Hand fired 9. Horizontally fired sander dust) 4. Cyclone furnace 10. Other (specify) 4. Cyclone furnace 10. Other (specify) 5. Wet bottom (pulverized coal)	Weeks per year	necessions about the development of the second of the seco	52		(Include a separate page	for each st	ack if multiple stac	
Sulfur dioxide 0.004 lb/hr 0.02 tons/yr Volatile organic compounds 0.04 lb/hr 0.15 tons/yr Carbon monoxide 0.54 lb/hr 2.35 tons/yr (Include calculations and assumptions) FUEL CODES 1. Natural gas 2. Oil (specify ASTM grade number) 3. Wood (specify chips, bark, shavings sander dust) 4. Cyclone furnace 4. Cyclone furnace 5. Wet bottom (pulverized coal)	11. CRITERIA POLLUTANT I	ESTIMATED EMIS	SIONS	(<u>Maximum</u> of a	ı II fuels is shown below)			,
Carbon monoxide 0.54 lb/hr 2.35 tons/yr (Include calculations and assumptions) FUEL CODES 1. Natural gas 2. Oil (specify ASTM grade number) 3. Wood (specify chips, bark, shavings sander dust) 4. Cyclone furnace 4. Coal (specify bituminous, anthracite, lignite) compounds Carbon monoxide 0.54 lb/hr 2.35 tons/yr (Include calculations and assumptions) 5. Were code assumptions and assumptions	Particulates	0.05 lb/hr	0.21	tons/yr	Nitrogen oxides	0.64 lb/h	ir 2.79	tons/yr
(Include calculations and assumptions) FUEL CODES 1. Natural gas 1. Spreader stoker 2. Oil (specify ASTM grade number) 3. Wood (specify chips, bark, shavings sander dust) 4. Cyclone furnace 4. Coal (specify bituminous, anthracite, lignite) 1. Spreader stoker 2. Chain or traveling grate 3. Hand fired 4. Cyclone furnace 5. Wet bottom (pulverized coal)	Sulfur dioxide	0.004 lb/hr	0.02	tons/yr		0.04 lb/h	o.15	tons/yr
FUEL CODES BURNER CODES 1. Natural gas 1. Spreader stoker 7. Underfeed stoker 2. Oil (specify ASTM grade number) 2. Chain or traveling grate 8. Tangentially fired 3. Wood (specify chips, bark, shavings 3. Hand fired 9. Horizontally fired sander dust) 4. Cyclone furnace 10. Other (specify) 4. Coal (specify bituminous, anthracite, lignite) 5. Wet bottom (pulverized coal)	Carbon monoxide	0.54 lb/hr	2.35	tons/yr	nate		una munitara e sa suma munitara e de 4 a de 1,4 de de 1,5 de 1	
1. Natural gas 2. Oil (specify ASTM grade number) 3. Wood (specify chips, bark, shavings sander dust) 4. Coal (specify bituminous, anthracite, lignite) 1. Spreader stoker 2. Chain or traveling grate 3. Hand fired 4. Cyclone furnace 5. Wet bottom (pulverized coal)			(In			***************************************		atta provide esta sinta aria de la finita de la companiente esta para principa esta se la confermiente de la c
2. Oil (specify ASTM grade number) 2. Chain or traveling grate 8. Tangentially fired 3. Wood (specify chips, bark, shavings 9. Horizontally fired 9. Horizontally fired 9. Horizontally fired 9. Cyclone furnace 10. Other (specify) 4. Cyclone furnace 10. Other (specify) 5. Wet bottom (pulverized coal)				[**			"7 (landaustaa	-l -k-l
3. Wood (specify chips, bark, shavings sander dust) 4. Cyclone furnace 10. Other (specify) 4. Coal (specify bituminous, anthracite, lignite) 5. Wet bottom (pulverized coal)								
4. Cyclone furnace 10. Other (specify) 4. Coal (specify bituminous, anthracite, lignite) 5. Wet bottom (pulverized coal)						•		
4. Coal (specify bituminous, anthracite, lignite) 5. Wet bottom (pulverized coal)		-			1 Cyclone furnace		10 Other (a)	necifu)
	4. Coal (specify bituminous, a	anthracite, lignite)					ro. Other (S)	Jeuny)
								oyayeenseensooyaansooyaansooyin eessaa saasa

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 2: FUEL-BURNING EQUIPMENT (complete a separate page for each unit)

1. APPLICANT'S REFERENCE NUM	1BER						
Fluidized Bed Dryer							
2. Maxon Ovenpak 400 Size 415H	3	. RATED HEAT	4. BURNER UNIT		5. HEAT U	SAGE	
			TYPE (use code)		% process	% spac	e heating
		NPUT CAPACIT` .5 MMBTU/hr	9. Horizontally fired		100 % proce	ess	
	1	the tattition to desire	, , , , , , , , , , , , , , , , , , , ,	1			
6. FUEL DATA			9. POLLUTION CONTROL EQU	UIPMENT			
O. TOLL DATA	Primary	Secondary	1		Secondary		
fuel type (use code)*	5. Propane	1. Natural gas	type	None		None	
percent sulfur	0.15 gr/dsc	f 0.003%	manufacturer		***************************************	deciral est	
percent ash	0%	0%	model number	alanan arang manan di di arang	***************************************	incidence descriptions and	
percent nitrogen	0%	1.8%	% efficiency				
percent carbon	81.8%	73.6%		**************************************			
percent hydrogen	18.2%	24.3%	MANUFACTURER GUARANTE	ED	yes	no	
percent moisture	0%	0%	(Include guarantee)				
heat content	94,000 BTU/gal	1,050 BTU/scf	for wet scrubbers:				
(percent by weight or volume)	- Company of the Comp		water flow	gpm			
All in % we	eight except su	ılfur for propane.	pressure drop	inches	of water		
7. FUEL CONSUMPTION		mikalanda ara-ca kirikinda ka ka ka muja da ka ka ka ku ya Abajilo ya gorong morana Aran sa sa sa sa sa sa sa					
	Primary	Secondary	for baghouse:				
Maximum amount			air/cloth ratio				
burned/hour	48 gal/hr	4,500 scf/hr	pressure drop	inches	of water		
Normal amount							
burned/year	420,500 gal/y	r 39.4 MMscf/yr	10. STACK OR EXHAUST DAT	ГА			
		and the second s					
Fly ash reinjection? yes _	no _X n.	a.		Stack ID		_DYR	
				Height		39.42 ft	
8. OPERATING SCHEDULE			Exi	t diameter		.0033 ft	
			Exit ga	as volume	1	.7E-6 act	fm
Hours per day		24	Exit gas ter	mperature		110° F	
Days per week	**************************************	7		•		and the second s	
Weeks per year		52	(Include a separate page for ea	ach stack if	multiple sta	cks or ve	nts are used)
11. CRITERIA POLLUTANT ESTIMA	TED EMISSION						
PM-10 0.03	lb/hr 0.	15 tons/yr	Nitrogen oxides	0.67	lb/hr	2.94 to	ons/yr
		32 tons/yr	Volatile organic	0.02	lb/hr	0.11 to	ns/yr
Carbon monoxide 0.38	lb/hr 1.	66 tons/yr	compounds				
	***************************************	(Include calcul	ations and assumptions) BURNER CODES		·····		
FUEL CODES			1. Spreader stoker		‴7 II.	nderfeed :	ntalear
Natural gas Oil (specify ASTM grade number)	1. Natural gas		Chain or traveling grate			ingentiall	
Wood (specify chips, bark, shavings		3. Hand fired			prizontally		
sander dust)			4. Cyclone furnace		10.0	ther (spe	cify)
4. Coal (specify bituminous, anthraci	te, lignite)		5. Wet bottom (pulverized coal)	i	10. 0	ciei (ahe	~y)
5. Other (specify): propane			6. Dry bottom (pulverized coal)				

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 2: FUEL-BURNING EQUIPMENT (complete a separate page for each unit)

1 APPLICANT'S REFERENCE	E NUMBER					
National Dryer Stage A (for sta						
2. EQUIPMENT MANUFACTU		3. RATED HE	AT 4. BURNER UNIT		5. HEAT USAGE	
MODEL NUMBER		,	TYPE (use code)			space heating
National, Eclipse 200 AM		INPUT CAPAC 3.6 MMBTU/hi		d	100 % process	,
6. FUEL DATA	Primary	Secondar	9. POLLUTION CONTROL		Secondary	
fuel type (use code)*	5. Propane	1. Natural gas	type	None	None	
percent sulfur	0.15 gr/ds	cf 0.003%	manufacturer			
percent ash	0%	0%	model number	***************************************		en.
percent nitrogen	0%	1.8%	% efficiency	***************************************	hada kalinda da da da casada ayay sa ayaa ca qayay araay ayay aa ayaa ayaa ayaa aya	•
percent carbon	81.8%	73.6%	***************************************	***************************************		•
percent hydrogen	18.2%	24.3%	MANUFACTURER GUARAN	VTEED	yes no	
percent moisture	0%	0%	(Include guarantee)			
heat content	94,000 BTU/ga	1,050 BTU/sc	for wet scrubbers:			
(percent by weight or v		unanara penerakanara menerakan kentan dara menerakan dara menerakan dara menerakan dara menerakan dara menerak	water flow	gpm		
Alli	n % weight except :	sulfur for propa	ne. pressure drop	inches	of water	
7. FUEL CONSUMPTION	an an ann an Aireann an Aireann an Aireann an an Aireann an Aireann an Aireann an Aireann an Aireann an Airean		a de la constanta de la consta			
	Primary	Secondar	for baghouse:			
Maximum amount			air/cloth ratio			
burned/hour	39 gph	3,600 scf	/hr pressure drop	inches	of water	
Normal amount	*** years and an action are project and definition in the control of the		and anything of			
burned/year	341,640 gal	/yr 31.54 MMscf/y	10. STACK OR EXHAUST I	DATA		
Fly ash reinjection?	_yes no _X	n.a.		Stack ID	NAT_A1	
				Height	36	ft
8. OPERATING SCHEDULE				Exit diameter	0.0033	ft
			Ex	it gas volume	1.7E-6	acfm
Hours per day		24	Exit gas	s temperature	150°	F
Days per week		7		۰		-
Weeks per year		52	(Include a separate page fo	r each stack if	multiple stacks or	vents are used
11. CRITERIA POLLUTANT E	STIMATED EMISS	IONS	ı			
Particulates		0.12 tons/yr	Nitrogen oxides	0.55	lb/hr 2.4	tons/yr
Sulfur dioxide		0.26 tons/yr	Volatile organic	0.02	lb/hr 0.09	tons/yr
Carbon monoxide	0.30 lb/hr	1.32 tons/yr	compounds ————————————————————————————————————			
FUEL CODES		(include cal	BURNER CODES	***************************************	e at a construent and a second and a second and by the form of soft soft soft and second and a second a second and a second a second and a second a	
1. Natural gas			Spreader stoker		7. Underfe	ed stoker
2. Oil (specify ASTM grade number)		2. Chain or traveling grate		8. Tangent		
3. Wood (specify chips, bark,	shavings		3. Hand fired		9. Horizon	tally fired
sander dust) 4. Coal (specify bituminous, a	nthracite, lignite)		Cyclone furnace Wet bottom (pulverized co		10, Other (s	specify)
5. Other (specify): propane			6. Dry bottom (pulverized co	oal)		

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 2: FUEL-BURNING EQUIPMENT (complete a separate page for each unit)

1. APPLICANT'S REFERENCE NUM	N BER				
National Dryer Stage A (for stack A2)					
2. EQUIPMENT MANUFACTURER	AND	3. RATED HEAT	4. BURNER UNIT	5. HEA	TUSAGE
MODEL NUMBER			TYPE (use code)	% proce	ess % space heating
National, Eclipse 200 AM		INPUT CAPACIT 3.6 MMBTU/hr	9. Horizontally fired	100 % p	process
	1			,	
6. FUEL DATA	Primary	Secondary	9. POLLUTION CONTROL EQUIPM Primary		ary
fuel type (use code)*	5. Propane	1. Natural gas		None	None
percent sulfur	0.15 gr/ds	cf 0.003%	manufacturer		resolucion anticonical processica malaticista man
percent ash	0%	0%	model number		
percent nitrogen	0%	1.8%	% efficiency		
percent carbon	81.8%	73.6%			and control of the co
percent hydrogen	18.2%	24.3%	MANUFACTURER GUARANTEED	yes	no
percent moisture	0%	0%	(Include guarantee)		
heat content	2,524 BTU/	scf 1,050 BTU/scf	for wet scrubbers:		
(percent by weight or volume))		water flow gpm		
All in % w	eight except s	sulfur for propane.	pressure drop i	inches of wate	er
7. FUEL CONSUMPTION		en men de construction de cons			
	Primary	Secondary	for baghouse:		
Maximum amount			air/cloth ratio		
burned/hour	39 gph	3,600 scf/hr	pressure drop i	inches of wate	er
Normal amount	Marine Committee		Trapples out to		
burned/year	341,640 gal	/yr 31.54 MMscf/yr	10. STACK OR EXHAUST DATA		
		anders in a second supplemental annual properties of the first properties and an annual probability of the contract			3.1.4 mm
Fly ash reinjection? yes _	no _X i	n.a.		ck ID	NAT_A2
			j	leight	36 ft
8. OPERATING SCHEDULE			Exit diar	meter	0.0033 ft
			Exit gas vo	lume	1.7E-6 acfm
Hours per day		24	Exit gas temper	ature	176° F
Days per week	**************************************	7		***************************************	and an international and an in
Weeks per year	ACCUPATION OF THE PROPERTY OF	52	(Include a separate page for each st	tack if multiple	stacks or vents are used)
11. CRITERIA POLLUTANT ESTIMA	ATED EMISS	IONS	I		
1 001 110 0110 100		0.12 tons/yr	Nitrogen oxides	0.55 lb/hr	2.4 tons/yr
	AND DESCRIPTION OF THE PARTY OF	0.26 tons/yr 1.32 tons/yr	Volatile organic compounds	0.02 lb/hr	0.09 tons/yr
Carbott monoxide			ations and assumptions)		
FUEL CODES	www.wis.enesses.gov.arenesses.com/com/com/com/com/com/com/com/com/com/	And the second s	BURNER CODES	eccenteroscontenes associated in sensibility and interesting a	
1. Natural gas			Spreader stoker		. Underfeed stoker
2. Oil (specify ASTM grade number)			2. Chain or traveling grate		. Tangentially fired
3. Wood (specify chips, bark, shavin	gs		3. Hand fired	9	. Horizontally fired
sander dust)			4. Cyclone furnace	1	0. Other (specify)
4. Coal (specify bituminous, anthraci	ite, lignite)		5. Wet bottom (pulverized coal)		
5. Other (specify): propane			6. Dry bottom (pulverized coal)	darantar as anno est a moi dar a stancatur a tra a sa a darantar a sa a darantar a sa a darantar a sa a darant	

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 2: FUEL-BURNING EQUIPMENT (complete a separate page for each unit)

1. APPLICANT'S REFERENCE NUI	MBER		**************	1					
National Dryer Stage B									
2. EQUIPMENT MANUFACTURER	AND	3. RAT	ED HEAT		4. BURNER UNIT	1	5. HEAT	USAGE	
MODEL NUMBER					TYPE (use code)		% proces	ss %s	pace heating
National, Eclipse 160 AM		3.6 MM	CAPACIT` BTU/hr	Y	9. Horizontally fire	d	100 % pr	ocess	
C FUEL DATA		•		a BOLL	UTION CONTROL	COLUDNENT			
6. FUEL DATA	Primary	Sec	condary	S. FOLL	OTION CONTROL		Seconda	ry	
fuel type (use code)*	5. Propane	1. N gas	Vatural	type		None		None	
percent sulfur	0.15 gr/ds	12	0.003%	manı	ıfacturer		***************************************		
percent ash	0%	a principies escensor	0%	mode	l number				
percent nitrogen	0%		1.8%	% eff	iciency				
percent carbon	81.8%	·	73.6%			eterrore construction of the construction of t	L.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
percent hydrogen	18.2%		24.3%	MANUFA	CTURER GUARAN	NTEED	yes	no	
percent moisture	0%		0%	(Include	guarantee)				
heat content	2,524 BTU/		1,050 3TU/scf	for w	et scrubbers:				
(percent by weight or volume)				water flow	gpm			
All in % w	eight except s	sulfur for	r propane.		pressure drop	inche	s of water		
7. FUEL CONSUMPTION									
	Primary	Sec	condary	for ba	ighouse:				
Maximum amount					air/cloth ratio				
burned/hour	39 gph	3,6	300 scf/hr		pressure drop	inche	s of water		
Normal amount									
burned/year	341,640 gal		31.54 //Mscf/yr	10. STA	CK OR EXHAUST I	DATA	**************************************		anno anno de massany massamana anguye u dunin dunin de de dunin de de 2014.
Fly ash reinjection? yes	no X	n.a.	variano varian o em seguina in mariano.			Stack ID		NAT_B	
, , , , , , , , , , , , , , , , , , , ,	James Anne Mariner					Height	Mittel from California and accompanies of accompanies of the California and California	36	ft
8. OPERATING SCHEDULE		CHERES AND SECURIOR STORY OF THE SECURIOR SECURI				Exit diameter		0.0033	ft
					Ex	it gas volume		1.7E-6	acfm
Hours per day		24			Exit gas	s temperature	tolodululureda belara removemente propi	167°	F
Days per week	***************************************	7							
Weeks per year	porpolation of the contract of	52		(Include	a separate page fo	r each stack it	f multiple	stacks or	vents are use
11. CRITERIA POLLUTANT ESTIM	ATED EMISS	SIONS		manufacture 1					
Particulates 0.03	3 lb/hr (0.12 to	ns/yr	_	Nitrogen oxides	0.55	lb/hr	2.4	tons/yr
and the state of t		0.26 to	and the second s	•	Volatile organic	0.02	lb/hr	0.09	tons/yr
Carbon monoxide 0.30	0 lb/hr	1.32 to		.	compounds				
FUEL CODES	villatete kardinen marjang sproproproproproproproproproproproproprop	(Inclu	ude calcula		Lassumptions)				
1. Natural gas					der stoker		7	Underfee	ed stoker
2. Oil (specify ASTM grade number)	J				or traveling grate			Tangenti	
3. Wood (specify chips, bark, shaving				3. Hand	fired		9.	Horizont	ally fired
sander dust)				4. Cyclo	ne furnace		10	. Other (s	pecify)
4. Coal (specify bituminous, anthrac	ite, lignite)			5. Wet b	ottom (pulverized c		·		

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE N	IUMBER]				
National Dryer Stage C								
2. EQUIPMENT MANUFACTURE	R AND	3. R	ATED HEAT	4. BURNER UNIT	•	5. HEAT	USAGE	
MODEL NUMBER		-		TYPE (use code)		% process % space he		pace heating
National, Model Eclipse 160 AM			JT CAPACIT MMBTU/hr	Y 9. Horizontally fire	d	100 % p	rocess	
6. FUEL DATA	m .			9. POLLUTION CONTROL		in .		
	Primary	1	Secondary		Primary	Seconda	-	
fuel type (use code)*	5. Propane	1	1. Natural gas	type	None		None	
percent sulfur	0.15 gr/d	scf	0.003%	manufacturer				
percent ash	0%		0%	model number			***************************************	
percent nitrogen	0%		1.8%	% efficiency	***************************************			
percent carbon	81.8%		73,6%			***************************************		
percent hydrogen	18.2%		24.3%	MANUFACTURER GUARAN	NTEED	yes	no	
percent moisture	0%		0%	(Include guarantee)				
heat content	2,524 BTL	l/scf	1,050 BTU/scf	for wet scrubbers:				
(percent by weight or volui	me)		The contraction of the contracti	water flow	gpm			
All in %	weight except	sulfu	for propane.	pressure drop	inche	s of water		
7. FUEL CONSUMPTION	**************************************							
	Primary	demonstrate	Secondary	for baghouse:				
Maximum amount				air/cloth ratio				
burned/hour	39 gph		3,600 scf/hr	pressure drop	inche	s of water	•	
Normal amount	(Market and Control of		, , , , , , , , , , , , , , , , , , ,					
burned/year	341,640 ga	ıl/yr	31.54 MMscf/yr	10. STACK OR EXHAUST I	DATA			
Fly ash reinjection? ye	es no _X	n.a.			Stack ID		NAT_C	
					Height	************************************	36	ft
8. OPERATING SCHEDULE			***************************************		Exit diameter	**************************************	0.0033	ft
				Ex	it gas volume		1.7E-6	acfm
Hours per day		24		Exit gas	s temperature		148°	F
Days per week		7				***************************************		
Weeks per year		52		(Include a separate page fo	r each stack if	f multiple	stacks or	vents are use
11. CRITERIA POLLUTANT EST	IMATED EMISS	SIONS	3					
Particulates C	1.03 lb/hr	0.12	tons/yr	Nitrogen oxides	0.55	lb/hr	2.4	tons/yr
	CONTRACTOR OF THE PROPERTY OF	0.26	tons/yr tons/yr	Volatile organic compounds	0.02	lb/hr	0.09	tons/yr
And the state of t				ations and assumptions)				
FUEL CODES	nerven von verwerpen von der von der kried van des des seines des ses ses ses ses ses ses ses ses s			BURNER CODES	ekolulukoholulusi vii va va va vaavasta suurusi vaivan ee esivaa ka vaivayay	***************************************	***************************************	***************************************
Natural gas				Spreader stoker			Underfee	
 Oil (specify ASTM grade numb Wood (specify chips, bark, sha 				Chain or traveling grate Hand fired			Tangenti: Horizonta	
sander dust)	virigo							
A Coal (amonify hiky main area amble	anita lianita)			4. Cyclone furnace5. Wet bottom (pulverized comments)	nal\	10	. Other (s	pecify)
 Coal (specify bituminous, anthr Other (specify): propane 	acite, ligrille)			6. Dry bottom (pulverized co				
- / / L : /							~~~~~	

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE NUI]							
Propane Heater 1									
2. EQUIPMENT MANUFACTURER	AND	3. RA	TED HEAT		4. BURNER UNIT	**************************************	5. HEAT	USAGE	
MODEL NUMBER					TYPE (use code)		% proces	s %sp	ace heating
Maxon, Model SC			T CAPACIT` MBTU/hr		9. Horizontally fired	d	100 % sp	ace heati	ng
6. FUEL DATA	Primary	s	econdary	9. POLLU	JTION CONTROL	EQUIPMENT Primary	Seconda	ry	
fuel type (use code)*	5. Propane	3	. Natural as	type		None		None	
percent sulfur	0.15 gr/ds	scf	0.003%	manut	acturer	**************************************			
percent ash	0%		0%	model	number	***************************************			
percent nitrogen	0%		1.8%	% effic	ciency				
percent carbon	81.8%		73.6%				<u> </u>	annananan marin manananan	
percent hydrogen	18.2%		24.3%	MANUFA	CTURER GUARAN	NTEED	_ yes	no	
percent moisture	0%		0%	(Include g	guarantee)				
heat content	2,524 BTU	l/scf	1,050 BTU/scf	for we	t scrubbers:				
(percent by weight or volume)			1	water flow	gpm			
	eight except	sulfur f	for propane.		pressure drop	inche	s of water		
7. FUEL CONSUMPTION	***************************************		entron arterioristico contrata esta contrata de la						
	Primary	s	econdary	for ba	ghouse:				
Maximum amount		-			air/cloth ratio				
burned/hour	13 gph	1	,200 scf/hr	-	pressure drop	inche	s of water		

Normal amount									
burned/year	113,880 ga		10.5 MMscf/hr	10.	STACK OR EXHA	AUST DATA			
Fly ash reinjection? yes _	no _X	n.a.				Stack ID		REC_1	
						Height		35.38 f	ft
8. OPERATING SCHEDULE	***************************************		4444			Exit diameter	***************************************	0.4 f	ft
					Ex	it gas volume		0.025 a	acfm
Hours per day		24			Exit gas	s temperature	warming americany in the control of	90° F	gride- dare,
Days per week		7					vina construir de la construir		
Weeks per year		52		(Include	a separate page fo	r each stack ii	f multiple :	stacks or v	vents are used,
11. CRITERIA POLLUTANT ESTIM	ATED EMISS	SIONS		Tana					
		0.04 t	*		Nitrogen oxides		lb/hr		tons/yr
The state of the s	angement and an order of the contract of the c	.087 t	tons/yr tons/yr	•	Volatile organic compounds	0.007	lb/hr	0.03	tons/yr
NAME OF THE PROPERTY OF THE PR		(Inc	clude calcul		assumptions)				
FUEL CODES				BURNER					
1. Natural gas				1. Spread				Underfee	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7
2. Oil (specify ASTM grade number) 3. Wood (specify chips, bark, shavin				Chain or traveling grate Reconstruction					**
sander dust)	V			•					•
A Coal (engoify hituminaus anthros	ita lianita)			4. Cyclone furnace 10. Other (specify) 5. Wet bottom (pulverized coal)					
4. Coal (specify bituminous, anthrac. 5. Other (specify): propane	ne, ngime)				ttom <i>(pulverized co</i>				
			***************************************	*******************************			**************	~~~~~~~~~~	

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE N	IUMBER							
Propane Heater 2								
2. EQUIPMENT MANUFACTURE	R AND	3. RATED HEAT	4. BURNER UNIT	5. HEAT USAGE				
MODEL NUMBER			TYPE (use code)	% process % space heating				
Maxon, Model SC		INPUT CAPACIT 1.2 MMBTU/hr	9. Horizontally fired	100 % space heating				
	1		1	ş				
6. FUEL DATA	Primary	Secondary	9. POLLUTION CONTROL EQUIPMI Primary	ENT Secondary				
fuel type (use code)*	5. Propane	1. Natural	,	Ione None				
percent sulfur	0.15 gr/ds	gas cf 0.003%	manufacturer					
percent ash	0%	0%	model number					
percent nitrogen	0%	1.8%	% efficiency					
percent carbon	81.8%	73.6%						
percent hydrogen	18.2%	24.3%	MANUFACTURER GUARANTEED	yes no				
percent moisture	0%	0%	(Include guarantee)					
heat content	2,524 BTU/	/scf 1,050 BTU/scf	for wet scrubbers:					
(percent by weight or volu	me)	www.cooperate cooperations and company of the compa	water flow gpm					
All in %	weight except	sulfur for propane	. pressure dropi	nches of water				
7. FUEL CONSUMPTION								
	Primary	Secondary	for baghouse:					
Maximum amount			air/cloth ratio					
burned/hour	13 gph	1,200 scf/hr	pressure dropi	nches of water				
Normal amount								
burned/year	113,880 ga	ll/yr 10.5 MMscf/hr	11. STACK OR EXHAUST DA	TA				
m	V	n a	Star	ckID REC_2				
Fly ash reinjection? ye	#S 110^	H.d.		eight 34.58 ft				
O OPERATING SOLIEDING		welder out to the second secon	Exit dian					
8. OPERATING SCHEDULE			Exit gas vo					
		0.4	Exit gas tempera					
Hours per day		24	Exit gas tempera	SERIL G. SO. I.				
Days per week			(Include a senarate name for each st	ack if multiple stacks or vents are used				
Weeks per year			(molade a separate page for each st	aux II multiple stacks of vents are assu,				
11. CRITERIA POLLUTANT EST	IMATED EMISS	IONS						
		0.04 tons/yr	Nitrogen oxides	0.23 lb/hr 1.0 tons/yr				
		.087 tons/yr 0.44 tons/yr	Volatile organic C	0.007 lb/hr 0.03 tons/yr				
in the state of th		-	 lations and assumptions)					
FUEL CODES			BURNER CODES					
1. Natural gas			Spreader stoker Chair or traveling grate	7. Underfeed stoker				
2. Oil (specify ASTM grade numb 3. Wood (specify chips, bark, sha			Chain or traveling grate Results					
sander dust)	························							
4. Coal (specify bituminous, anth	racita lianital		4. Cyclone furnace 10. Other (specify)					
5. Other (specify): propane	, weine, iigiiite)		5. Wet bottom (pulverized coal) 6. Dry bottom (pulverized coal)					

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 2: FUEL-BURNING EQUIPMENT (complete a separate page for each unit)

1. APPLICANT'S REFERENCE NU	MBER			
Propane Heater 3				
2. EQUIPMENT MANUFACTURER	AND	3. RATED HEA	AT 4. BURNER UNIT 5. HEAT USAGE	and the second s
MODEL NUMBER			TYPE (use code) % process % space	heating
Maxon, Model SC		INPUT CAPACI 1.2 MMBTU/hr	9. Horizontally fired 100 % space heating	
6. FUEL DATA	Primary	Secondary	POLLUTION CONTROL EQUIPMENT Primary Secondary	
fuel type (use code)*	5. Propane	1. Natural	type None None	
percent sulfur	0.15 gr/ds		manufacturer	
percent ash	0%	0%	model number	
percent nitrogen	0%	1.8%	% efficiency	
percent carbon	81.8%	73.6%		
percent hydrogen	18.2%	24.3%	MANUFACTURER GUARANTEEDyesno	
percent moisture	0%	0%	(Include guarantee)	
heat content	2,524 BTU	/scf 1,050 BTU/scf	for wet scrubbers:	
(percent by weight or volume)	and the second s	water flowgpm	
All in % w	eight except	sulfur for propan	pressure drop inches of water	
7. FUEL CONSUMPTION				
	Primary	Secondary	for baghouse:	
Maximum amount			air/cloth ratio	
burned/hour	13 gph	1,200 scf/h	nr pressure dropinches of water	
Normal amount	NOTICE AND ADDRESS OF THE PARTY			
burned/year	113,880 ga	al/yr 10.5 MMscf/hr	12. STACK OR EXHAUST DATA	
Fly ash reinjection? yes	no _X	n.a.	Stack ID REC_3	
			Height 35.58 ft	
8. OPERATING SCHEDULE			Exit diameter 0.4 ft	
			Exit gas volume 0.025 acfm	1
Hours per day		24	Exit gas temperature 90° F	
Days per week	Podogranjeniejen veneralne na	7	***************************************	
Weeks per year		52	(Include a separate page for each stack if multiple stacks or vent	s are used)
11. CRITERIA POLLUTANT ESTIM	ATED EMISS	SIONS		
Particulates 0.0	1 lb/hr	0.04 tons/yr	Nitrogen oxides 0.23 lb/hr 1.0 ton	
	and the second s	.087 tons/yr 0.44 tons/yr	Volatile organic 0.007 lb/hr 0.03 ton- compounds	s/yr
9000410149-1		(Include calc	culations and assumptions)	
FUEL CODES	44-4-0-2-1		BURNER CODES	
1. Natural gas			1. Spreader stoker 7. Underfeed sto	
2. Oil (specify ASTM grade number, 3. Wood (specify chips, bark, shavii			2. Chain or traveling grate 8. Tangentially f 3. Hand fired 9. Horizontally fi	
sander dust)	· 5 **			
	rite lianita)		4. Cyclone furnace 10. Other (specification for the following forms) 10. Other (specification for the following for the	ry)
4. Coal (specify bituminous, anthract) 5. Other (specify): propane	nce, ngime)		6. Dry bottom (pulverized coal)	

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE NUMBER					2. PROCESS OR OPERATION NAME					
Cyclone				Tote Dum	p Station					
3. MAXIMUM RATED INPUT CAPACITY	4. NORMAL M	AXIMUM	FEED INPUT	allineeria de conservante en maria de la conservante en la conservante en la conservante en la conservante en	5. NORMAL MA	XIMUM PRO	DUCT OUTPUT			
1,750 lb/hr	1,750lb/hr				1,750 lb/hr					
6. PROCESS EQUIPME	VT		10. POLLUTION C	ONTROL	EQUIPMENT Primary	Secondar	y			
Туре	Cyclone		Туре		None					
Manufacturer	Custom	niniman.	Manufacturer		and the service and the second					
Model Number	NA		Model Number		Any or the Annual Control of the Con		non-resident and a state of the contract of th			
Feed Material	Potato Flakes		% Efficiency							
7. OPERATING SCHED	ULE		MANUFACTURES		NTEED Yes	no				
Hours per day	24		For wet scrubbers:							
Days per week			water flow			gpm 				
Weeks per year	52	Production of	pressure drop			inches of	water			
8. STACK OR EXHAUS	T DATA		For bagho							
Stack ID	Cyclone		pressure	drop	extracted accounts of the contraction of contractions of the contraction of the contrac	epoconyles-	inches of wate			
Height	44.08	ft				arjuntarium				
Exit diameter	0.0033	ft	11. CRITERIA POL	LUTANT	ESTIMATED EMISS	SIONS	compound enoigns de julien den da la provinció bemás brioximoninha ne sa sa proces			
Exit gas volume	1.7E-6	acfm								
Exit gas temperature		F	Particulates as F	PM ₁₀	0.0	07 lb/hr	0.29 tons/yr			
		одинующи	sulfur dioxide		*** Company of the Company of Com	lb/hr	tons/yr			
(Include a separate page stacks or vents are used)	for each stack if multi	ple a report.	carbon monoxide	е		lb/hr	tons/yr			
State of volve and area,		Si	nitrogen oxides			lb/hr	tons/yr			
			Volatile organic			lb/hr	tons/yr			
			compounds	(Include	calculations and as	sumptions)				
9. TOXIC AIR POLLUTA	NT ESTIMATED EMIS	SIONS	and the second s	enne ennemente la	annos arrente en como de en fico arrente forme en en en activido en el Africa de en estre la termene constante	kinden kalan kan kentan penyambah keladi antah melangan penyami	anni karina da ta'an kan karina kan kan kan kan kan kan kan kan kan k			
(Include calcu	lations and assumption	ns)								
Pollutant		Uncontro	olled Emissions		Con	trolled Emis	sions			
None	lb/hr		tons/yr		lb/hr		tons/y			
	lb/hr		tons/yr		lb/hr		tons/y			
	lb/hr		tons/yr	1	lb/hr		tons/y			
	lb/hr lb/hr		tons/yr tons/yr	-	lb/hr lb/hr		tons/y			
	lb/hr		tons/yr		lb/hr	~~~~	tons/y			
	lb/hr		tons/yr		lb/hr		tons/y			
	lb/hr		tons/yr	1	Ib/hr	***************************************	tons/y			
	10/111		LONS/YI		167.11		LOHS/ Y			

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFER	2	2. PROCESS OR OPERATION NAME						
Drum Dryers 1-12			C	Dehydratio	n Process Lines			
3. MAXIMUM RATED INPUT CAPACITY	4. NORMAL MAX	XIMUM F	FEED INPUT	[6. NORMAL MA	XIMUM P	RODUCT	OUTPUT
90,000 lb/hr	90,000 lb/hr				18,000 lb/hr			
6. PROCESS EQUIPMEN	VT		10. POLLUTION CO	NTROL É	QUIPMENT Primary	Second	dary	windows with the contract of t
Туре	Dehydrators		Туре	1	None	None		
Manufacturer	Various	energe.	Manufacturer	_				
Model Number	Various	enders.	Model Number	Model Number				
Feed Material	Feed Material Potatoes		% Efficiency	-				
7. OPERATING SCHED	ULE		MANUFACTURER ((Include guarantee)	GUARAN'	TEED Yes	no		
Hours per day	24		For wet scrubbers:					
Days per week	7	-	water flow	***		gpm		
Weeks per year	52	****	pressure drop	***		inches	of water	
8. STACK OR EXHAUS	r DATA		For baghou air/cloth ra					
Stack ID	See modeling report		pressure o	drop		turbesheduni.	ine	ches of water
Height	See modeling report	— ft		***	от на применя продукти в применения на применения на применения применения применения применения применения пр	Marie Marie		
Exit diameter	See modeling report	ft	11. CRITERIA POLL	UTANT E	STIMATED EMISS	SIONS		
Exit gas volume	See modeling report	acfm						
Exit gas temperature	See modeling report	F	Particulates as PM	A ₁₀	23	.4 lb/hr	102.49	tons/yr
•	respective entre en		sulfur dioxide		0.13	32 lb/hr	0.578	tons/yr
(Include a separate page stacks or vents are used)	for each stack if multiple Please see modeling	e report.	carbon monoxide	•		lb/hr		tons/yr
	•		nitrogen oxides	_		lb/hr		tons/yr
			Volatile organic compounds			lb/hr		tons/yr
				(Include d	calculations and as	sumption	s)	sovido isistendos ferindos consideres e mássas
9. TOXIC AIR POLLUTAI	NT ESTIMATED EMISS	IONS						
(Include calcu	lations and assumptions	s)						
Pollutant	ţ	Jncontro	olled Emissions		Cor	trolled Er	missions	
None	lb/hr		tons/yr		lb/hr			tons/yı
Because of the second s	lb/hr		tons/yr		lb/hr			tons/yı
	lb/hr		tons/yr		lb/hr			tons/yı
	lb/hr		tons/yr		lb/hr			tons/yi
	lb/hr	***************************************	tons/yr		lb/hr	and the second s	and in the second s	tons/yı
	lb/hr		tons/yr		lb/hr			tons/yı
	lb/hr		tons/yr		lb/hr	***************************************	******************************	tons/yi
	lb/hr		tons/yr	******************************	lb/hr	~~~~~		tons/yı

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE NUMBER				2. PROCESS OR OPERATION NAME				
Flake Packaging Bulk Line	9			Dehydrati	on Process Lines			
3. MAXIMUM RATED	4. NORMAL MA	XIMUM	FEED INPUT	4	7. NORMAL MAXI	MUM PF	RODUCT OUTPUT	
INPUT CAPACITY 12,000 lb/hour	12,000 lb/hr				12,000 lb/hr			
6. PROCESS EQUIPMEN		igene geographical annual	10. POLLUTION C	ONTROL E	QUIPMENT Primary	Seconda	ary	
Type I	Packaging		Туре		Cyclone	Ва	aghouse	
Manufacturer \	√arious	wherein	Manufacturer		Idaho Steel	Micr	ropulsair	
Model Number I	VA	namour.	Model Number		Unknown	Model #	#25-S-8- 30-C	
Feed Material I	Potatoes	energian	% Efficiency		90%		99%	
7. OPERATING SCHEDU	JLE		MANUFACTURER		ITEED Yes	No 🏻	3	
Hours per day	24		For wet scrubbers:	,				
Days per week	7		water flow			gpm		
Weeks per year	52	-	pressure drop			inches o	of water	
vveeks per year	had here.		production of				. VANCONI	
8. STACK OR EXHAUST	DATA		For bagho	ouses:				
			air/cloth	ratio	4 - 15.7	•		
Stack ID	FP_BULK		pressure	drop	3" – 6" WC	•	inches of wate	
Height ⁻	38.75	ft				•		
Exit diameter	0.33	ft	11. CRITERIA POL	LUTANT I	ESTIMATED EMISSION	ONS	and control to the control of the co	
Exit gas volume	1,675	acfm						
Exit gas temperature	68 (ambient)	F	Particulates as P	M ₁₀	0.120	lb/hr	0.526 tons/yr	
	and the second of the control of the second		sulfur dioxide			lb/hr	tons/yr	
(Include a separate page stacks or vents are used)	for each stack if multiple	е	carbon monoxide	9	lb/hr		tons/yr	
,			nitrogen oxides		enels was with every in the section of the section	lb/hr	tons/yr	
			Volatile organic		source constitution from a constitution of the state of t	lb/hr	tons/yr	
			compounds	(Include	calculations and assu	ımptions)		
9. TOXIC AIR POLLUTAN	IT ESTIMATED EMISS	SIONS						
1	ations and assumption							
Pollutant		Uncontro	olled Emissions		Contr	olled Em	issions	
None	lb/hr		tons/yr		lb/hr		tons/y	
books of the first play group of the streams will be considered up to some up as a sea and and which is the company of the streams as a second of the streams and the streams as a second of the stream as a second of the streams as a second of the stream as a second of the streams as a second of the stream as a second of the s	lb/hr		tons/yr		lb/hr		tons/y	
	lb/hr		tons/yr		lb/hr	vnen nemeriskiskum rangam men	tons/y	
	lb/hr		tons/yr		lb/hr		tons/y	
	lb/hr	namatana katana kat	tons/yr	<u> </u>	lb/hr		tons/y	
	lb/hr		tons/yr		lb/hr		tons/y	
	lb/hr		tons/yr	-	lb/hr	***************************************	tons/y	
	lb/hr	***************************************	tons/yr		lb/hr	·	tons/y	
	lb/hr		tons/yr		lb/hr		tons/y	

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

Flake Packaging 3. MAXIMUM RATED INPUT CAPACITY 8,000 lb/hour 6. PROCESS EQUIPMENT Dehydration Process Lines 8. NORMAL MAXIMUM PRODUCT OU 8,000 lb/hr 8,000 lb/hr 10. POLLUTION CONTROL EQUIPMENT Primary Secondary	PUT
INPUT CAPACITY 8,000 lb/hour 8,000 lb/hr 6. PROCESS EQUIPMENT Primary Secondary	PUT -
Primary Secondary	
Type Packaging Type Cyclone Baghouse	
Manufacturer Idaho Steel Micropulsair	
Model Number NA Model Number NA 12-8-160C	
Feed Material Potatoes % Efficiency 90% 99%	
7. OPERATING SCHEDULE MANUFACTURER GUARANTEED Yes No X (Include guarantee)	
Hours per day 24 For wet scrubbers:	
Days per week 7 water flow gpm	
Weeks per year 52 pressure drop inches of water	
8. STACK OR EXHAUST DATA For baghouses: air/cloth ratio 4 – 15.7	
Stack ID FP pressure drop 3" - 6" WC inches	of water
Height 39.59 ft	
Exit diameter 4 ft 11. CRITERIA POLLUTANT ESTIMATED EMISSIONS	
Exit gas volume 14,024 acfm	
Exit gas temperature 68 (ambient) F Particulates as PM ₁₀ 0.080 lb/hr 0.35 tons.	vr
sulfur dioxide lb/hr tons	deraniere en exemple en en
(Include a separate page for each stack if multiple carbon monoxide lb/hr tons, stacks or vents are used)	yr
nitrogen oxides lb/hr tons.	yr
Volatile organic lb/hr tons compounds	yr
(Include calculations and assumptions)	-
9. TOXIC AIR POLLUTANT ESTIMATED EMISSIONS	
(Include calculations and assumptions)	
Pollutant Uncontrolled Emissions Controlled Emissions	
None lb/hr tons/yr lb/hr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr
lb/hr tons/yr lb/hr	tons/yr

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE NUMBER				2. PROCESS OR OPERATION NAME					and the second s
Flake Packaging Torit				Dehydration	on Process Line	s			
3. MAXIMUM RATED INPUT CAPACITY 8,000 lb/hour	4. NORMAL MAX 8,000 lb/hr	(IMUM F	FEED INPUT		9. NORMAL 8,000 lb/hr	MAXIN	JUM PR	ODUCT	OUTPUT
6. PROCESS EQUIPMEN		alluri verinini e elemente e e e esti mentro di como	10. POLLUTION C	ONTROL E	QUIPMENT Primary		Seconda	ary	
Type	Packaging		Туре		Baghouse				
Manufacturer 1	Various	-	Manufacturer	•		Torit	- sendencial control and an analysis of the control	***************************************	
Model Number	NA	war.	Model Number	•	Model T	D-162	***************************************		
Feed Material	Potatoes		% Efficiency			99%			
7. OPERATING SCHEDU	JLE		MANUFACTUREF		TEED Ye	es	No 🏻		
Hours per day	24		For wet scrubbers:						
Days per week	7		water flow				gpm		
Weeks per year	52	990	pressure drop			***************************************	inches o	f water	
8. STACK OR EXHAUST	DATA	controlled and principle in Common restart in the	For baghe			1.94			
Stack ID	FP_TOR		pressure	e drop	3" - 6	S" WC		inc	ches of water
Height	33.92	- ft							
Exit diameter	0.25	- ft	11. CRITERIA POL	LUTANT E	STIMATED EN	IISSIO	NS	***	**************************************
Exit gas volume	9.7E-3	acfm							
Exit gas temperature	68 (ambient)	F	Particulates as F	PM ₁₀		0.080		0.350	
			sulfur dioxide				lb/hr		tons/yr
(include a separate page stacks or vents are used)	for each stack if multiple	∌	carbon monoxid	e			lb/hr		tons/yr
			nitrogen oxides				lb/hr	1	tons/yr
			Volatile organic compounds				lb/hr	•	tons/yr
			Compounds	(Include	calculations and	d assur	mptions)		
9. TOXIC AIR POLLUTAN	NT ESTIMATED EMISS	IONS	and the second s			en e	- Commission - Com		varyaniningini elemanini sistemati elemanini e
(Include calcul	ations and assumptions	i)							
Pollutant	(Jncontro	olled Emissions			Contro	olled Emi	issions	
None	lb/hr		tons/y		lb/hr		elasjoinen kanalasta at albahan kanalasta kanalasta		tons/yr
	lb/hr		tons/y		lb/hr			***************************************	tons/yr
Annual value de la companya del la companya de la c	lb/hr		tons/y		lb/hr	manistra consission	ministrativo exercisco de la constancia de	**********************	tons/yr
	lb/hr	www.wienencomormormor	tons/y		lb/hr		encontractor management and		tons/yr
	lb/hr		tons/y		lb/hr	meninaleimeineime		·	tons/yr
	lb/hr		tons/y		lb/hr		***********		tons/yr
	lb/hr	ong a grant of the contract of	tons/y		lb/hr			***************************************	tons/yr
	lb/hr	-	tons/y	1	lb/hr		version and a second second second second		tons/yr
	lb/hr		tons/y		lb/hr	***************************************	electronyment on the contradiction of the contradic	water market with the second of the second o	tons/yr

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFERENCE NUMBER				2. PROCESS OR OPERATION NAME					
Flake Packaging Drum Ne	gative Air Baghouse			Dehydrati	on Process Lines				
3. MAXIMUM RATED INPUT CAPACITY 18,000 lb/hour	4. NORMAL MA 18,000 lb/hr	MUMIX	FEED INPUT	anacama propriazione, have que é réviri	10. NORMAL MAXI 18,000 lb/hr	MUM PRODUC	T OUTPUT		
6. PROCESS EQUIPMEN	***		10. POLLUTION CO	ONTROL E	QUIPMENT Primary	Secondary			
Type P	ackaging		Туре		Cyclone	Baghous	Э		
Manufacturer V	arious	tumontus.	Manufacturer		Idaho Steel	Nol-Tecl Systen			
Model Number N	A		Model Number		NA		3		
Feed Material P	Feed Material Potatoes		% Efficiency	iciency 90% 99%			, , , , , , , , , , , , , , , , , , ,		
7. OPERATING SCHEDULE		MANUFACTURER (Include guarantee)	MANUFACTURER GUARANTEED Yes No 🗵 (Include guarantee)						
Hours per day	24		For wet scrubbers:						
Days per week	7	elitel velicity of	water flow			gpm			
Weeks per year	52	industrial and the second seco	pressure drop			inches of water			
8. STACK OR EXHAUST	DATA		For bagho		4.18				
Stack ID	FP_BH		pressure	drop	3" - 6" WC	i	nches of water		
Height —	37.42	ft			ent an along program and program and an activity and an activity program and an activity of entire for the program and	*			
Exit diameter	1.53	ft	11. CRITERIA POL	LUTANT I	ESTIMATED EMISSION	ONS	**************************************		
Exit gas volume	12,000	acfm							
Exit gas temperature	Ambient	F	Particulates as P	'M ₁₀	0.180	lb/hr 0.788	tons/yr		
Sontano	electrical contraction (contraction of the Contraction of the Contract		sulfur dioxide		lb/hr		tons/yr		
(Include a separate page t stacks or vents are used)	for each stack if multi	ple	carbon monoxide	9		lb/hr	tons/yr		
			nitrogen oxides			lb/hr	tons/yr		
			Volatile organic compounds			lb/hr	tons/yr		
			Joinpoundo	(Include	calculations and assu	ımptions)			
9. TOXIC AIR POLLUTAN	IT ESTIMATED EMIS	SIONS	and the second s			rioring de construent de la construent que en en entre qui actuar en en en en entre actuar actuar actuar actua			
(Include calcula	tions and assumptior	ns)							
Pollutant		Uncontro	olled Emissions		Contro	olled Emissions			
None	lb/hr		tons/yr		lb/hr		tons/yr		
	lb/hr		tons/yr	1	lb/hr		tons/yr		
	lb/hr		tons/yr	<u></u>	lb/hr		tons/yr		
	lb/hr		tons/yr		lb/hr		tons/yr		
	lb/hr		tons/yr	L	lb/hr		tons/yr		
	lb/hr		tons/yr		lb/hr		tons/yr		
	lb/hr		tons/yr		lb/hr		tons/yr		
	lb/hr	3000000000000000000000000000000000000	tons/yr tons/yr		lb/hr		tons/yr tons/yr		
	lb/hr		tons/yr		lb/hr				

STATE OF IDAHO APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

1. APPLICANT'S REFER	ENCE NUMBER		2. PROCESS OR OPERATION NAME					
Fluidized Bed Dryer			Dehydration Pro	cess Lines				
3. MAXIMUM RATED INPUT CAPACITY 2,000 lb/hour	4. NORMAL MAXIMUN 2,000 lb/hr	FEED INPUT	11. N 2,000	IORMAL MAXI	MUM PR	ODUCT OL	JTPUT	
6. PROCESS EQUIPMEN	IT	10. POLLUTION C	ONTROL ÉQUIP Prim		Seconda	rv	**************************************	
Type D	Dehydration	Туре	None	•		None		
Manufacturer		Manufacturer	enchant de la compania del compania del compania de la compania del la compania de la compania del la compania de la compania de la compania del la compania de la compania del la compania					
Model Number N	VA	Model Number	control or seculation of the seculation of the					
Feed Material F	otatoes	% Efficiency						
7. OPERATING SCHEDU	JLE	MANUFACTUREF		Yes	No 🏻			
Hours per day	24	For wet scrubbers:						
Days per week	and the second s	water flow			gpm			
Weeks per year	52	pressure drop			inches of	water		
8. STACK OR EXHAUST	DATA	For baght						
Stack ID	FBD_DYR	pressure	e drop		**			
Height	39.42 ft		***************************************	anne en anne en anne en al morte adeixon le minerante	-			
Exit diameter	0.0033 ft	11. CRITERIA POL	LUTANT ESTIM	ATED EMISSI	ONS			
Exit gas volume	1.7E-6 acfm							
Exit gas temperature	110 F	Particulates as F	PM ₁₀	3.50	lb/hr	15.33 ton	s/vr	
Notice of the Control	000000000000000000000000000000000000	sulfur dioxide				0.063 ton		
(Include a separate page stacks or vents are used)	for each stack if multiple	carbon monoxide	2	lb/hr		ton	s/yr	
,		nitrogen oxides			lb/hr	ton	s/yr	
		Volatile organic			lb/hr	ton	s/yr	
		compounds	(Include calcula	ations and assu	ımptions)		15-7-15-15-15-16-16-16-16-16-16-16-16-16-16-16-16-16-	
9. TOXIC AIR POLLUTAN	T ESTIMATED EMISSIONS							
(Include calcula	ations and assumptions)							
Pollutant	Uncont	rolled Emissions		Contr	olled Emis	ssions		
None	lb/hr	tons/yr	· · ·	lb/hr			tons/yr	
	lb/hr	tons/yr	-	lb/hr	***************************************	Marin trade de la lactica de la companya de la comp	tons/yr	
Annual Control of the	lb/hr	tons/yr	*	lb/hr			tons/yr	
	lb/hr	tons/yr		lb/hr			tons/yr	
and the second s	lb/hr	tons/yr		lb/hr			tons/yr	
	lb/hr	tons/yr		lb/hr			tons/yr	
	lb/hr	tons/yr		lb/hr			tons/yr	
	lb/hr	tons/yr		lb/hr	sansinancambahn mio bahmamah		tons/yr	
	lb/hr	tons/yr	1	lb/hr			tons/yr	

STATE OF IDAHO APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 3: PROCESS AND MANUFACTURING EQUIPMENT (complete a separate page for each distinct process or manufacturing operation)

1. APPLICANT'S REFE	RENCE NUMBER	2.	2. PROCESS OR OPERATION NAME				
National Dryers (States	A-1, A-2, B, and C)	De	hydration Process Line	≱S .			
3. MAXIMUM RATED INPUT CAPACITY 1,500 lb/hour	4. NORMAL MAXIMUM 1,500 lb/hr	FEED INPUT	12. NORMAL 1,500 lb/hr	MAXIMUM P	RODUCT OUTPUT		
1,300 15/11001	1,300 15/11		1,000 10/11				
6. PROCESS EQUIPME	NT	10. POLLUTION CON	TROL EQUIPMENT Primary	Second	lary		
Туре	Dehydration	Туре	None		None		
Manufacturer	National	Manufacturer		***************************************			
Model Number	NA	Model Number			encentral and an extraordisc contracts and an		
Feed Material	Potatoes	% Efficiency					
7. OPERATING SCHED	DULE	MANUFACTURER G	JARANTEED Ye	es No			
		(Include guarantee)					
Hours per day		For wet scrubbers:					
Days per week		water flow		gpm			
Weeks per year	52	pressure drop		inches	of water		
8. STACK OR EXHAUS	T DATA	For baghouse	es:				
		air/cloth ration	0				
Stack ID	See Section 2 Forms	pressure dro	ор	water and the same			
Height	See Section 2 Forms ft			www.commonwerow			
Exit diameter	See Section 2 Forms ft	11. CRITERIA POLLU	TANT ESTIMATED EN	NISSIONS	appropriate the second		
Exit gas volume	See Section 2 Forms acfm						
Exit gas temperature	See Section 2 Forms F	Particulates as PM ₁₀		1.71 lb/hr	7.49 tons/yr		
•	a praviani menindrani oropi dan menara apopo erindronomi entropresido a endefe do resease entres entres entres	sulfur dioxide		0.08 lb/hr	0.356 tons/yr		
(Include a separate page stacks or vents are used	e for each stack if multiple	carbon monoxide	Mijest ki di andri ngandipin na nakarawa na makarawa na mje akaba hari akaka n	lb/hr	tons/yr		
	,	nitrogen oxides	en america profession processes en folicio de constitución processes en conseste en conses	lb/hr	tons/yr		
		Volatile organic compounds		lb/hr	tons/yr		
		(li	nclude calculations and	I assumptions	<u>2)</u>		
9. TOXIC AIR POLLUTA	NT ESTIMATED EMISSIONS				ing and a second se		
(Include calcu	lations and assumptions)						
Pollutant	Uncontro	olled Emissions	(Controlled En	nissions		
None	lb/hr	tons/yr	lb/hr	a parte Nova a transportar a successiva de la composição de la composição de la composição de la composição de	tons/yr		
	lb/hr	tons/yr	lb/hr	Nethelin (antariari ari ari ari ari ari ari ari ari a	tons/yr		
	lb/hr	tons/yr	lb/hr	-	tons/yı		
	lb/hr	tons/yr	lb/hr	and the second s	tons/yr		
	lb/hr	tons/yr	lb/hr		tons/yr		
	lb/hr	tons/yr	lb/hr		tons/yr		
	lb/hr	tons/yr	lb/hr		tons/yı		
	lb/hr	tons/yr	lb/hr	***************************************	tons/yı		
	lb/hr	tons/yr	lb/hr		tons/yr		

STATE OF IDAHO

RDO Processing, LLC. Facility-Wide Tier II Permit Application Page 3-25

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 3: PROCESS AND MANUFACTURING EQUIPMENT (complete a separate page for each distinct process or manufacturing operation)

1. APPLICANT'S REFERENCE NUMBER				2. PROCESS OR OPERATION NAME			
Tank #1			Storage 1	Tank			
3. MAXIMUM RATED 4. NORMAL	MUMIXAM	FEED INPUT		13. NORMAL MA	XIMUM PRODU	ICT OUTPUT	
INPUT CAPACITY 30,000 gallons 30,000 gallon	•			NA			
30,000 gallons	<i>ت</i>						
6. PROCESS EQUIPMENT	occocynizacy expression in the control of the block	10. POLLUTION CO	ONTROL		1		
				Primary	Secondary	Linear	
Type Storage Tank	secretivatesconnille.	Туре		None	None	AND	
Manufacturer Unknown	in the second	Manufacturer				Tabilitation of the	
Model Number Unknown		Model Number					
Feed Material Diesel or Residual F	uel	% Efficiency			hender els est para la la la la mana est al es an la constant de la constant de la colonia de la colonia de la	manand-manandarian	
7. OPERATING SCHEDULE		MANUFACTURER	GUARAI	NTEED Yes	no		
		(Include guarantee)	1				
Hours per day 24		For wet scrubbers:				as as a same and a same a	
Days per week 7		water flow			gpm		
Weeks per year 52	agopparenteramenterionis	pressure drop			inches of wat	er	
8. STACK OR EXHAUST DATA See TANK	S Output	For bagho	nicae.				
O. STACK OR EXPLANS! DATA SEE TAIN	o output	air/cloth					
Stack ID		pressure			Andrew Boundaries	inches of water	
Height	ft	p. 0000.10	di op		www.www.		
Exit diameter	ft ft	11. CRITERIA POL	LUTANT	ESTIMATED EMIS	SIONS		
	manage de	TI. CITIENTA I OL	LOTAIN	COTINIA LED EMIO	0010110		
Exit gas volume	acfm	Ph. 63-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1			He On	4 4	
Exit gas temperature	F	Particulates as P	IVI ₁₀		lb/hr	tons/yr	
		sulfur dioxide			lb/hr	tons/yr	
(Include a separate page for each stack if mustacks or vents are used)	iltiple	carbon monoxide	9		lb/hr	tons/yr	
stacks of vents are dood,		nitrogen oxides		as para large de construir de a misera a montra a montra a antima de para que que mentra que a que montra con	lb/hr	tons/yr	
		Volatile organic		0	.81 lb/hr 4.11	E-4 tons/yr	
		compounds	(Include	calculations and a	ecumptions)		
	10010110		(meidde	Calculations and a	ssumptions)		
TOXIC AIR POLLUTANT ESTIMATED EM (Include calculations and assumption)							
Pollutant		olled Emissions		Co	ontrolled Emission	าร	
None lb/l	hr	tons/yr		lb/hr		tons/yr	
lb/l	hr	tons/yr		lb/hr		tons/yr	
lb/l	hr	tons/yr		lb/hr		tons/yr	
lb/l	hr	tons/yr		lb/hr		tons/yr	
lb/l		tons/yr	<u> </u>	lb/hr		tons/yr	
lb/l		tons/yr		lb/hr		tons/yr	
lb/l	hr	tons/yr		lb/hr		tons/yr	
lb/l	hr	tons/yr		lb/hr		tons/yr	
lb/l	hr	tons/yr		lb/hr	eriya elemende eriya elemende eriya karana eriya eriya elemende eriya elemende eriya elemende eriya elemende e	tons/yr	

STATE OF IDAHO

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 3: PROCESS AND MANUFACTURING EQUIPMENT (complete a separate page for each distinct process or manufacturing operation)

1. APPLICANT'S REFE	RENCE NUMBER			2. PROC	ESS OR OPERATI	ON NAME	
Tank #2				Storage 7	Tank		
3. MAXIMUM RATED INPUT CAPACITY 30,000 gallons	4. NORMAL MAX 30,000 gallons	XIMUM	FEED INPUT	Amendria (n. 1811) ir	14. NORMAL MA	XIMUM PROD	OUCT OUTPUT
6. PROCESS EQUIPME	NT	***************************************	10. POLLUTION CO	ONTROL			
_					Primary	Secondary	
1	Storage Tank	-	Туре		None	None	Potativanty/continue
Manufacturer			Manufacturer				intrinsection of the second
Model Number		NOW	Model Number				
reed Material	Diesel or Residual Fuel	ridoria	% Efficiency				ndo-constructions reports.
7. OPERATING SCHED	DULE	***************************************	MANUFACTURER	GUARAN	ITEED Yes	no	
			(Include guarantee)				
Hours per day		****	For wet scrubbers:				
Days per week		-	water flow			gpm	
Weeks per year	52	***	pressure drop			inches of wa	iter
8. STACK OR EXHAUS	T DATA See TANKS O	utput	For bagho				
Stack ID			pressure	drop	CONTRACTOR OF THE PROPERTY OF	TOTO OR THE STATE OF THE STATE	inches of water
Height		ft	·	•		PORTUGUES.	Wallet of Water
Exit diameter		- ft	11. CRITERIA POLI	UTANT E	ESTIMATED EMISS	IONS	
Exit gas volume	oo tayaan kaan ka	acfm					
Exit gas temperature		F	Particulates as PN	VI ₁₀			tons/yr
		-	sulfur dioxide			lb/hr	tons/yr
(Include a separate page stacks or vents are used)	for each stack if multiple	:	carbon monoxide	•	en del de de la manuer en marque post en handre de	lb/hr	tons/yr
,			nitrogen oxides	-		lb/hr	tons/yr
			Volatile organic	•	0.8	1 lb/hr 4.1	E-4 tons/yr
			compounds	(Include o	calculations and ass	arimamin mal	
9. TOXIC AIR POLLUTAI	NT ESTIMATED EMISSI	ONS		(molade e	valoulations and ass	sumptions)	
	lations and assumptions)						a managaran da man
Pollutant	- '		olled Emissions		Cont	rolled Emissio	ns
None	lb/hr		tons/yr		lb/hr		tons/yr
	lb/hr	~~~~	tons/yr	***************************************	lb/hr		tons/yr
	lb/hr	***************************************	tons/yr		lb/hr		tons/yr
	lb/hr	Tetrateterioriscomo consecuente	tons/yr		lb/hr		tons/yr
	lb/hr	oprawa wy war a c	tons/yr	***************************************	lb/hr	eth to the translation of process and an arrangement and process and a second and a	tons/yr
	lb/hr		tons/yr	***************************************	lb/hr		tons/yr
	lb/hr	and the second second second	tons/yr		lb/hr		tons/yr
	lb/hr		tons/yr	der think of which makes were an analysis of the second	lb/hr		tons/yr
	lb/hr		tons/yr		lb/hr		tons/yr

STATE OF IDAHO

APPLICATION TO CONSTRUCT AN AIR POLLUTION EMITTING FACILITY

SECTION 3: PROCESS AND MANUFACTURING EQUIPMENT (complete a separate page for each distinct process or manufacturing operation)

1. APPLICANT'S REFER	ENCE NUMBER		12.	PROC	ESS OR OPERATION	ON NAME	
Tank #3 (proposed)			s	Storage Tank			
3. MAXIMUM RATED INPUT CAPACITY 30,000 gallons	4. NORMAL MAX	KIMUM	FEED INPUT		15. NORMAL MAX	XIMUM PRC	DUCT OUTPUT
6. PROCESS EQUIPMEN			10. POLLUTION CON	VTROL E	QUIPMENT Primary	Secondar	
Type \$	Storage Tank		Туре		None	None	,
Manufacturer (Jnknown	inte	Manufacturer		rannorum, constitui 444 o materiori sonistras monorum in oran tendente constituita in accidente constituita in	***************************************	negrocontrovo etalogica etalogo en
Model Number (Jnknown	-	Model Number		anni i farantaman an an i i i i i i i i i i i i i i i i		and between prevention and resident and
Feed Material I	Diesel or Residual Fuel	-	% Efficiency				alahdak dan
7. OPERATING SCHEDU	JLE .	ngangsanstinlydismotorlabelad	MANUFACTURER G	SUARAN	TEED Yes	no	
Hours per day	24		For wet scrubbers:				
Days per week	7	•••	water flow			gpm	
Weeks per year	52;		pressure drop			inches of	water
8. STACK OR EXHAUST	DATA See TANKS O	utput	For baghous	tio		noice	
Stack ID_		nons	pressure d	rop		on/recov	inches of water
Height		ft 					
Exit diameter		ft	11. CRITERIA POLLU	JTANT E	ESTIMATED EMISS	IONS	
Exit gas volume		acfm					
Exit gas temperature		F	Particulates as PM	10			tons/yr
	and the second s	harina	sulfur dioxide	,	nara a sa ca mandan ka da ka ka ka pandan da mandan da manda sa manda sa panda manda na ka da manda na ka da m	lb/hr	tons/yr
(Include a separate page f stacks or vents are used)	or each stack if multiple	9	carbon monoxide	·		lb/hr	tons/yr
			nitrogen oxides			lb/hr	tons/yr
			Volatile organic compounds		0.8	1 lb/hr 4	1.1E-4 tons/yr
				Include	calculations and ass	sumptions)	
9. TOXIC AIR POLLUTAN	T ESTIMATED EMISS	ONS					
	ations and assumptions						
Pollutant	ι	Jncontro	olled Emissions		Cont	trolled Emiss	sions
None	lb/hr		tons/yr		lb/hr		tons/yr
	lb/hr		tons/yr		lb/hr		tons/yr
	lb/hr		tons/yr		lb/hr		tons/yr
	lb/hr		tons/yr	***************	lb/hr		tons/yr
	lb/hr		tons/yr	-	lb/hr	T	tons/yr
	lb/hr		tons/yr	sinal-piaculas craftadasi in annos	lb/hr		tons/yr
	lb/hr		tons/yr		lb/hr		tons/yr
	lb/hr		tons/yr	ana manana m Manana manana manan	lb/hr		tons/yr
	lb/hr		tons/yr		lb/hr	~~~	tons/yr

4.0 REGULATORY APPLICABILITY ANALYSIS

In preparing and submitting this application, RDO has evaluated the applicability of state and Federal regulations to the facility-wide permit. Each subsection contains the applicability analysis for a specific subset of air quality regulations, as follows:

- Subsection 4.1 Applicable and Inapplicable IDAPA 58.01.01 Requirements
- Subsection 4.2 Applicable and Inapplicable Federal Air Quality Regulations General
- Subsection 4.3 Applicable and Inapplicable New Source Performance Standards (40 CFR Part 60)
- Subsection 4.4 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
- Subsection 4.5 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)
- Subsection 4.6 Specific Applicable and Inapplicable Requirement Discussion

4.1 Applicable and Inapplicable IDAPA 58.01.01 Requirements

Table 4-1 cites the applicable and inapplicable requirements of the Rules for the Control of Air Pollution in Idaho (IDAPA 58.01.01) for air emitting activities at RDO.

Table 4-1 Applicable and Inapplicable IDAPA 58.01.01 Requirements

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
000	LEGAL AUTHORITY General Applicability	N/A	No	N/A	No substantive requirements (Note B)
001	TITLE AND SCOPE General Applicability	N/A	No	N/A	No substantive requirements (Note B)
002	WRITTEN INTERPRETATIONS General Applicability	N/A	No	N/A	No substantive requirements (Note B)
003	ADMINISTRATIVE APPEALS General Applicability	N/A	Yes	N/A	No substantive requirements
004	CATCHLINES General Applicability	N/A	Yes	N/A	No substantive requirements
005	DEFINITIONS General Applicability	N/A	Yes	N/A	No substantive requirements
006	GENERAL DEFINITIONS General Applicability	N/A	Yes	N/A	No substantive requirements
007	DEFINITIONS FOR THE PURPOSES OF SECTIONS 200 THROUGH 228 AND 400 THROUGH 461 General Applicability	N/A	Yes	N/A	400-461 facility not in source category No requirements given

<u></u>		Cara a II a			
Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional
		Method)			Information
008	DEFINITIONS FOR THE PURPOSES OF SECTIONS 300 THROUGH 386 General Applicability	N/A	Yes	N/A	No substantive requirements
009	DEFINITIONS FOR THE PURPOSES OF 40 CFR PART 60 General Applicability	N/A	Yes	N/A	No substantive requirements
010	DEFINITIONS FOR THE PURPOSES OF 40 CFR PART 61 AND 40 CFR PART 63	N/A	Yes	N/A	No substantive requirements
011	DEFINITIONS FOR THE PURPOSE OF SECTIONS 790 THROUGH 799	N/A	No	N/A	(Note D)
106	ABBREVIATIONS General Applicability	N/A	Yes	N/A	No substantive requirements
107	INCORPORATIONS BY REFERENCE General Applicability	N/A	Yes	N/A.	No substantive requirements
121	COMPLIANCE REQUIREMENTS BY DEQ General Applicability	As specified for individual requirements	Yes	Yes	
122	INFORMATION ORDERS BY DEQ General Applicability	N/A	No	N/A	(Note B)
123	CERTIFICATION OF DOCUMENTS General Applicability	Recordkeeping	Yes	Yes	
124	TRUTH, ACCURACY AND COMPLETENESS OF DOCUMENTS General Applicability	Recordkeeping	Yes	Yes	
125	FALSE STATEMENTS General Applicability	Recordkeeping	Yes	Yes	
126	TAMPERING General Applicability	Recordkeeping	Yes	Yes	жен роского на при при в при в при пот се напринательного на напру се в сентенного расперия подна в на на навы на на на навы на
127	FORMAT OF RESPONSES General Applicability	Recordkeeping	Yes	Yes	теп тепін коло обоботно обоботно от
128	CONFIDENTIAL INFORMATION	Recordkeeping	Yes	Yes	the control of the co
130-136	General Applicability UPSET, BREAKDOWN, AND EXCESS EMISSIONS REQUIREMENTS	Reporting/Recordkeeping	Yes	Yes	
140-149	VARIANCE PROCEDURES and PETITIONS General Applicability	N/A	No	N/A	(Notes A,C)
155	CIRCUMVENTION General Applicability	Recordkeeping	Yes	Yes	No installation or use of any device conceals an emission of air pollutants.
156	TOTAL COMPLIANCE General Applicability	Recordkeeping	Yes	Yes	en e
157	TEST METHODS AND PROCEDURES General Applicability	Recordkeeping	Yes	Yes	до од настания в при
160	PROVISIONS GOVERNING SPECIFIC ACTIVITIES AND CONDITIONS General Applicability	Recordkeeping	Yes	Yes	
161	TOXIC SUBSTANCES General Applicability	Recordkeeping	Yes	Yes	(Note A)
162	MODIFYING PHYSICAL CONDITIONS General Applicability	N/A	No	N/A	(Note B)

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
163	SOURCE DENSITY	N/A	No	N/A	(Note B)
164	POLYCHLORINATED BIPHENYLS (PCBS) Requirements or Standards: Prohibits burning PCB containing materials, in quantities greater that five (5) ppm, except for disposal.	N/A	No	N/A	(Note F)
175-180	PROCEDURES AND REQUIREMENTS FOR PERMITS ESTABLISHING A FACILITY EMISSIONS CAP	N/A	No	N/A	
181	NOTICE AND RECORD-KEEPING OF ESTIMATES OF AMBIENT CONCENTRATIONS	N/A	No	N/A	
200 - 202	PROCEDURES AND REQUIREMENTS FOR PERMITS TO CONSTRUCT General Applicability	Reporting/Recordkeeping	Yes	Yes	
203	PERMIT REQUIREMENTS FOR NEW AND MODIFIED STATIONARY SOURCES	N/A	No	N/A	
204	PERMIT REQUIREMENTS FOR NEW MAJOR FACILITIES OR MAJOR MODIFICATIONS IN NONATTAINMENT AREAS	N/A	No	N/A	
205	PERMIT REQUIREMENTS FOR NEW MAJOR FACILITIES OR MAJOR MODIFICATIONS IN ATTAINMENT OR UNCLASSIFIABLE AREAS	N/A	Yes	N/A	
206 - 208	OPTIONAL OFFSETS FOR PERMITS TO CONSTRUCT; EMISSION REDUCTION CREDIT; NET AIR QUALITY BENEFIT	N/A	No	N/A	(Note C)
209	PROCEDURES FOR ISSUING PERMITS	N/A	No	N/A	(Note B)
210	DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE WITH TOXIC STANDARDS	Recordkeeping/Reporting	Yes	Yes	
211	CONDITIONS FOR PERMITS TO CONSTRUCT	N/A	No	N/A	(Note B)
212	OBLIGATION TO COMPLY	Specific for each requirement	Yes	Yes	
213 214	PRE-PERMIT CONSTRUCTION DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE FOR NEW AND RECONSTRUCTED SOURCES OF HAZARDOUS AIR POLLUTANTS	N/A N/A	No No	N/A N/A	(Notes C, D) (Note D)
220 – 223	EXEMPTIONS FROM PERMIT TO CONSTRUCT REQUIREMENTS	N/A	No	N/A	(Note C, D)
224 - 227	FEES	N/A	Yes	Yes	Fees will be paid.
228	APPEALS	N/A	N/A	N/A	
300-316	PROCEDURES AND REQUIREMENTS FOR TIER I OPERATING PERMITS General Applicability	All	Yes	Yes	

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	Yes or No	Explanation Code and/or Additional Information
317	INSIGNIFICANT ACTIVITIES	None	Yes	Yes	Insignificant activities have no applicable requirements
321	TIER I OPERATING PERMIT CONTENT General Applicability	All	No	N/A	This is not a Tier I permit application.
322	STANDARD CONTENTS OF TIER I OPERATING PERMITS General Applicability to Tier I Sources	N/A	No	N/A	
325	ADDITIONAL CONTENTS OF TIER I OPERATING PERMITS - PERMIT SHIELD General Applicability to Tier I Sources	N/A	No	N/A	
332	EMERGENCY AS AFFIRMATIVE DEFENSE REGARDING EXCESS EMISSIONS. General Applicability to Tier I Sources	Reporting/Recordkeeping	No	N/A	
335	GENERAL TIER I OPERATING PERMITS AND AUTHORIZATIONS TO OPERATE	N/A	No	N/A	(Note B)
336	TIER I OPERATING PERMITS FOR TIER I PORTABLE SOURCES	N/A	No	N/A	
360-368	STANDARD PROCESSING OF TIER I OPERATING PERMIT APPLICATIONS General Applicability to Tier I Sources	N/A	No	N/A	
369	TIER I OPERATING PERMIT RENEWAL General Applicability to Tier I Sources	N/A	No	N/A	
380-386	CHANGES TO TIER I OPERATING PERMITS General Applicability to Tier I Sources	N/A	No	N/A	
387 - 397	FEES	N/A	No	N/A	
400-406	PROCEDURES AND REQUIREMENTS FOR TIER II OPERATING PERMITS	N/A	Yes	Yes	
407 - 410	FEES	N/A	Yes	Yes	Fees will be paid,
440	REQUIREMENTS FOR ALTERNATIVE EMISSION LIMITS (BUBBLES)	N/A	No	N/A	(Note C)
441	DEMONSTRATION OF AMBIENT EQUIVALENCE	N/A	No	N/A	(Note C)
460-461	REQUIREMENTS FOR EMISSION REDUCTION and BANKING EMISSION REDUCTION CREDITS	N/A	No	N/A	(Note C)
500	REGISTRATION PROCEDURES AND REQUIREMENTS FOR PORTABLE EQUIPMENT	N/A	No	N/A	(Note D)
510	STACK HEIGHTS AND DISPERSION TECHNIQUES	Air Dispersion Modeling; Recordkeeping, Reporting	Yes	Yes	Sec 511-516
511	APPLICABILITY	Recordkeeping	Yes	Yes	
512	DEFINITIONS	Recordkeeping	Yes	Yes	

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
513	REQUIREMENTS	Recordkeeping	Yes	Yes	
514	OPPORTUNITY FOR PUBLIC HEARING	N/A	No	No	(Note B)
515	APPROVAL OF FIELD STUDIES AND FLUID MODELS	N/A	No	No	Administrative and/or procedural
516	NO RESTRICTION ON ACTUAL STACK HEIGHT	N/A	Yes	N/A	No substantive requirements
550-553 & 556-561	AIR POLLUTION EMERGENCY RULE	N/A	No	N/A	Applicability is case-by-case
562	SPECIFIC EMERGENCY EPISODE ABATEMENT PLANS FOR POINT SOURCES	N/A	No	N/A	RDO has not been required by the Department to prepare an Emergency Episode Abatement Plan. (Note B)
563 - 574	TRANSPORTATION CONFORMITY	N/A	No	N/A	(Notes C, D)
575-581	AIR QUALITY STANDARDS AND AREA CLASSIFICATION	Air Dispersion Modeling and Monitoring	Yes	Yes	
582	INTERIM CONFORMITY PROVISIONS FOR NORTHERN ADA COUNTY FORMER NON- ATTAINMENT AREA FOR PM-10	N/A	No	N/A	(Note D)
585-586	TOXIC AIR POLLUTANTS NON- CARCINOGENIC & CARCINOGENIC INCREMENTS	Recordkeeping/Reporting	Yes	Yes	(Note A)
587	LISTING OR DELISTING TOXIC AIR POLLUTANT INCREMENTS	N/A	No	N/A	(Note A, C)
590	NEW SOURCE PERFORMANCE STANDARDS	N/A	Yes	Yes	See specific comments on specific NSPS in Subsections 4.3 and 4.6
591	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS	N/A	No	N/A	
600-603 & 606-609	RULES FOR CONTROL OF OPEN BURNING	N/A	No	N/A	(Note F)
610	INDUSTRIAL FLARES	N/A	Yes	N/A	No substantive requirements
611-617	RULES FOR CONTROL OF OPEN BURNING	N/A	No	N/A	(Note F)
625	VISIBLE EMISSIONS	Monitoring, Reporting, Recordkeeping	Yes	Yes	A person shall not emit an air pollutant from any point of emission for a period or periods aggregating more that 3 minutes in any 60 minute period which is greater than 20% opacity.
626	GENERAL RESTRICTIONS ON VISIBLE EMISSIONS FROM WIGWAM BURNERS	N/A	No	N/A	Facility does not have this emissions unit.
650-651	RULES FOR CONTROL OF FUGITIVE DUST	Reasonable steps taken to control or mitigate fugitive dust	Yes	Yes	Reasonable precautions are utilized to control fugitive emissions at this facility. This is not applicable to any

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
					point source.
675	FUEL BURNING EQUIPMENT - PARTICULATE MATTER Facility operates fuel burning equipment.		Yes	Yes	See rules 676-680
676	STANDARDS FOR NEW SOURCES	Recordkeeping	Yes	Yes	
677	STANDARDS FOR MINOR AND EXISTING SOURCES	N/A	No	N/A	(Note D)
678-680	COMBINATIONS OF FUELS	N/A	No	N/A	(Note C)
681	TEST METHODS AND PROCEDURES	Use of required test procedure(s)	Yes	Yes	
700	PARTICULATE MATTER PROCESS WEIGHT LIMITATIONS.		Yes	Yes	See rules 701-703
701	PARTICULATE MATTER – NEW EQUIPMENT PROCESS WEIGHT LIMITATIONS.	Monitoring and Testing	Yes	Yes	(Note A)
702	PARTICULATE MATTER – EXISTING EQUIPMENT PROCESS WEIGHT LIMITATIONS	Monitoring and Testing	Yes	Yes	(Note A)
703	PARTICULATE MATTER – OTHER PROCESSES	N/A	No	N/A	(Note D)
725	RULES FOR SULFUR CONTENT OF FUELS General Applicability	N/A	Yes	N/A	Applies to distillate and residual fuel used by RDO.
726	DEFINITIONS AS USED IN SECTIONS 727 THROUGH 729	N/A	Yes	N/A	
727	RESIDUAL FUEL OILS	N/A	Yes	N/A	
728	DISTILLATE FUEL	N/A	Yes	N/A	
729	COAL	N/A	No	N/A	(Note E)
750-751	RULES FOR CONTROL OF FLUORIDE EMISSIONS	Monitoring and Testing	N/A	N/A	(Note C)
760-764	RULES FOR CONTROL OF AMMONIA FROM DAIRY FARMS	N/A	No	N/A	
775-776	RULES FOR CONTROL OF ODORS General Applicability	RDO will investigate any odor complaint or identified issue.	Yes	N/A	(Note A); No substantive requirements for regulated units or activities.
785-787	RULES FOR CONTROL OF INCINERATORS	N/A	No	N/A	(Note D)
790 – 802	RULES AND EMISSION STANDARDS FOR CONTROL OF NONMETALLIC MINERAL PROCESSING PLANTS	N/A	No	N/A	(Note D)
805-808	RULES FOR CONTROL OF HOT- MIX ASPHALT PLANTS	N/A	No	N/A	(Note D)
815-826	RULES FOR CONTROL OF KRAFT PULPING MILLS	N/A	No	N/A	(Note D)
835-839	RULES FOR CONTROL OF RENDERING PLANTS	N/A	No	N/A	(Note D)
845-848	RULES FOR CONTROL OF SULFUR OXIDE EMISSIONS FROM SULFURIC ACID PLANTS	N/A	No	N/A	(Note D)

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Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
855-858	COMBINED ZINC AND LEAD SMELTERS	N/A	No	N/A	(Note D)
859	STANDARDS OF PERFORMANCE FOR MUNICIPAL SOLID WASTE LANDFILLS THAT COMMENCED CONSTRUCTIONMAY 30, 1991	N/A	No	N/A	(Note D)
	EMISSION GUIDELINES FOR MUNICIPAL SOLID WASTE LANDFILLS THAT COMMENCED CONSTRUCTIONMAY 30, 1991	N/A	No	N/A	(Note D)
	STANDARDS OF PERFORMANCE FOR HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS THAT COMMENCED CONSTRUCTIONMARCH 16, 1998	N/A	No	N/A	(Note D)
-,	EMISSION GUIDELINES FOR HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS THAT COMMENCED CONSTRUCTION BEFORE JUNE 20, 1996	N/A	No	N/A	(Note D)

APPLICABILITY EXPLANATION CODES

N/A Not Applicable

- A State only.
- B Regulation applies to regulatory authority.
- C Currently there are no projects or circumstances existing at the facility that would subject RDO to these provisions; however, RDO may use these provisions in the future if the circumstances arise.
- D Facility is not in this source category.
- E Facility does not use this fuel type.
- F Facility does not conduct this activity.

4.2 Applicable and Inapplicable Federal Air Quality Regulations – General

Table 4-2 cites applicable and inapplicable Federal Air Quality regulations provided in Title 40 of the Code of Federal Regulations (40 CFR).

Table 4-2 Applicable and Inapplicable 40 CFR Regulations

Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
40 CFR Part 50	National Primary and Secondary Ambient Air Quality Standards	N/A	No	N/A	(Note A)
40 CFR Part 51	Requirements for Preparation, Adoption, and Submittal of Implementation Plans	N/A	No	N/A	(Note A)
40 CFR Part 52	Approval and Promulgation of Implementation Plans	N/A	No	N/A	(Notes A, C)
40 CFR Part 53	Ambient Air Monitoring Reference and Equivalent Methods	N/A	No	N/A	(Note B)
40 CFR Part 54	Prior Notice of Citizen Suits	N/A	No	N/A	Rules govern citizen suit actions.
40 CFR Part 55	Outer Continental Shelf Air Regulations	N/A	No	N/A	Rules govern Outer Continental Shelf activities.
40 CFR Part 56	Regional Consistency	N/A	No	N/A	(Note A)
40 CFR Part 57	Primary Nonferrous Smelter Orders	N/A	No	N/A	(Note C)
40 CFR Part 58	Ambient Air Quality Surveillance	N/A	No	N/A	Ambient air quality surveillance is not required at this facility.
40 CFR 59	National Volatile Organic Compound Emission Standards for Consumer and Commercial Products	N/A	No	N/A	(Note C)
40 CFR Part 60	Standards of Performance for New Stationary Sources	N/A	Yes	Yes	NSPS Subpart Db will apply to the boiler after re- rating to 150 MMBtu/hr. Subpart Kb applies to tanks.
40 CFR Part 61	National Emission Standards for Hazardous Air Pollutants	N/A	No	N/A	NESHAPs do not apply (Note C)
40 CFR Part 62	Approval and Promulgation of State Plans for Designated Facilities and Pollutants	N/A	No	N/A	(Note A)
40 CFR Part 63	National Emission Standards for Hazardous Air Pollutants for Source Categories	N/A	No	N/A	NESHAPs do not apply (Note C)
40 CFR Part 64	Compliance Assurance Monitoring	N/A	No	N/A	(Note C); see discussion below.
40 CFR Part 65	Consolidated Federal Air Program	N/A	No	N/A	(Note A)
40 CFR Part 66	Assessment and Collection of Noncompliance Penalties by EPA	N/A	No	N/A	(Note A)
40 CFR Part 67	EPA Approval of State Noncompliance Penalty Program	N/A	No	N/A	(Note A)
40 CFR Part 68	Chemical Accident Prevention Provisions	N/A	No	N/A	
40 CFR Part 69	Special Exemptions from Requirements of the Clean Air Act	N/A	No	N/A	(Note A)

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Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information		
40 CFR Part 70 State Operating Permit Programs		N/A	No	N/A	(Note A)		
40 CFR Part 71	Federal Operating Permit Programs	N/A	No	N/A	(Note A)		
40 CFR Part 72	Permits Regulation	N/A	No	N/A	(Note A)		
40 CFR Part 73	Sulfur Dioxide Allowance System	N/A	No	N/A	(Note C)		
40 CFR Part 74	Sulfur Dioxide Opt-Ins	N/A	No	N/A	(Note C)		
40 CFR Part 75	Continuous Emission Monitoring	N/A	No	N/A	(Note C)		
40 CFR Part 76	Acid Rain Nitrogen Oxides Emission Reduction Program	N/A	No	N/A	(Note C)		
40 CFR Part 77	Excess Emissions	N/A	No	N/A	(Note C)		
40 CFR Part 78	Appeal Procedures for Acid Rain Program	N/A	No	N/A	(Note C)		
40 CFR Part 79	Registration of Fuels and Fuel Additives	N/A	No	N/A	(Note C)		
40 CFR Part 80	Regulation of Fuels and Fuel Additives	N/A	No	N/A	(Note C)		
40 CFR Part 81	Designation of Areas for Air Quality Planning Purposes	Designation of Areas for Air N/A No N/A					
40 CFR Part 82, Subparts A – E; G-H	Protection of Stratospheric Ozone	N/A	No	N/A	(Note C)		
40 CFR Part 82, Subpart F	Protection of Stratospheric Ozone; Recycling and Emissions Reduction	Recordkeeping	No	N/A			
40 CFR Part 85	Control of Air Pollution from Mobile Sources	N/A	No	N/A	(Note C)		
40 CFR Part 86	Control of Emissions from New and In-Use Highway Vehicles and Engines	N/A	No	N/A	(Note C)		
40 CFR Part 87	Control of Air Pollution from Aircraft and Aircraft Engines	N/A	No	N/A	(Note C)		
40 CFR Part 88	Clean-Fuel Engines	N/A	No	N/A	(Note C)		
40 CFR Part 89	Control of Emissions from New and In-Use Non-road Compression-Ignition Engines	N/A	No	N/A	(Note C)		
40 CFR Part 90	Control of Emissions from Non-road Spark-Ignition Engines at or Below 19 Kilowatts	N/A	No	N/A	(Note C)		
40 CFR Part 91	Control of Emissions from Marine Spark Ignition Engines	N/A	No	N/A	(Note C)		
40 CFR Part 92	Control of Air Pollution from Locomotives and Locomotive Engines	N/A.	No	N/A	(Note C)		
40 CFR Part 93	Determining Conformity of Federal Actions to State or Federal Implementation Plans	N/A	No	N/A	(Notes A,C)		
40 CFR Part 94	Control of Emissions from Marine Compression- Ignition Engines	NA	No	N/A	(Note C)		
40 CFR Part 95	Mandatory Patent Licenses	N/A	No	N/A	(Note C)		
40 CFR Part 96	NO _x Budget Trading	N/A	No	N/A	(Notes A, C)		

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Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)		In Compliance Yes or No	Explanation Code and/or Additional Information
	Program for State Implementation Plant				
40 CFR Part 97	Federal NOx Budget Trading Program	N/A	No	N/A	(Note C)

APPLICABILITY EXPLANATION CODES

- A Regulation applies to regulatory authority.
- B Rules governing ambient air quality standards and/or monitoring or definitions of criteria for air pollution emergency purposes and do not apply to individual sources.
- C Facility is not in this source category.

4.3 Applicable and Inapplicable New Source Performance Standards (40 CFR Part 60)

Table 4-3 cites applicable and inapplicable New Source Performance Standards given in 40 CFR Part 60 (IDAPA 58.01.01.590).

Table 4-3 Applicable and Inapplicable New Source Performance Standards (40 CFR Part 60)

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994	No
(Subpart Cb)	
Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Subpart Cc)	No
Emission Guidelines and Compliance Times for Sulfuric Acid Production Plants (Subpart Cd)	No
Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators (Subpart Ce)	No
Fossil fuel-fired Steam Generators (Subpart D)	No
Electric Utility Steam Generating Units (Subpart Da)	No
Industrial-Commercial-Institutional Steam Generating Units (Subpart Db)	Yes – See discussion below
Small Industrial-Commercial-Institutional Steam Generating Units (Subpart Dc)	No
Incinerators (Subpart E)	No
Municipal waste combustors (Subpart Ea)	No
Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 24, 1994 (Subpart Eb)	No
Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20,1996 (Subpart Ec)	No
Portland cement plants (Subpart F)	No
Nitric Acid Plants (Subpart G)	No
Sulfuric Acid Plants (Subpart H)	No
Asphalt Concrete Plants (Subpart I)	No
Petroleum refineries (Subpart J)	No
Storage Vessels for Petroleum Liquidsfor Construction, Reconstruction, or Modification, Commenced after June 11, 1973, and prior to May 19, 1978 (Subpart K)	No
Storage Vessels for Petroleum Liquidsfor Construction, Reconstruction, or Modification, Commenced after May 18, 1978, and Prior to July 23, 1984 (Subpart Ka)	No
Volatile Organic Liquid Storage Vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984 (Subpart Kb)	Yes – See discussion below
Secondary Lead Smelters (Subpart L)	No
Secondary Brass and Bronze Ingot Production Plants (Subpart M)	No

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Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
fron and Steel Plants (Primary Emissions from Basic Oxygen Furnaces Constructed after June 11, 1973) (Subpart N)	No
fron and steel plants (secondary emissions from basic oxygen furnaces constructed after January 20, 1983) (Subpart Na)	No
Sewage Treatment Plants (Subpart O)	No
Primary Smelters: Copper (Subpart P)	No
Primary Smelters: Zinc (Subpart Q)	No
Primary Smelters: Lead (Subpart R)	No
	No
Primary Aluminum Reduction Plants (Subpart S) Wet process Phosphoric Acid Plants (Subpart T)	No
Superphosphoric Acid Plants (Subpart U)	No
	No
Diammonium Phosphate Plants (Subpart V)	No
Friple Superphosphate Plants (Subpart W)	No
Granular Triple Superphosphate Storage Facilities (Subpart X)	No
Coal Preparation Plants (Subpart Y)	No No
Ferroalloy Production Facilities (Subpart Z)	No No
Steel Plants: Electric Arc Furnaces (Subpart AA)	No No
Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels constructed	180
ufter August 17, 1983 (Subpart AAa)	No
Kraft Pulp Pills (Subpart BB)	
Glass Manufacturing Plants (Subpart CC)	No
Grain Elevators (Subpart DD)	No
Surface Coating of Metal Furniture (Subpart EE)	No
Stationary Gas Turbines (Subpart GG)	No
ime Manufacturing Plants (Subpart HH)	No
ead-acid Battery Manufacturing Plants (Subpart KK)	No
Metallic Mineral Processing Plants (Subpart LL)	No
Automobile and Light-duty Truck Surface Coating Operations (Subpart MM)	No
Phosphate Rock Plants (Subpart NN)	No
Ammonium Sulfate Manufacture Plants (Subpart PP)	No
Graphic Arts Industry: Publication Rotogravure Printing (Subpart QQ)	No
Pressure Sensitive Tape and Label Surface Coating Operations (Subpart RR)	No
Industrial Surface Coating: Large Appliances (Subpart SS)	No
Metal Coil Surface Coating (Subpart TT)	No
Asphalt processing and asphalt roofing manufacture (Subpart UU)	No
Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (Subpart VV)	No
Beverage Can Surface Coating Industry (Subpart WW)	No
Bulk Gasoline Terminals (Subpart XX)	No
New Residential Wood Heaters (Subpart AAA)	No
Rubber Tire Manufacturing Industry (Subpart BBB)	No
Polymer Manufacturing Industry (Subpart DDD)	No
Plexible Vinyl and Urethane Coating and Printing (Subpart FFF)	No
Equipment Leaks of VOC in Petroleum Refineries (Subpart GGG)	No
Synthetic Fiber Production Facilities (Subpart HHH)	No
Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes (Subpart III)	No
Petroleum Dry Cleaners (Subpart JJJ)	No
Onshore Natural Gas Processing Plants (Subpart KKK)	No
Onshore Natural Gas Processing: SO ₂ Emissions (Subpart LLL)	No
Synthetic Organic Chemical Manufacturing Industry Distillation Operations (Subpart NNN)	No
Nonmetallic Mineral Processing Plants (Subpart OOO)	No
Wool Fiberglass Insulation Manufacturing Plants (Subpart PPP)	No
Petroleum Refinery Wastewater System VOC Emissions (Subpart QQQ)	No
Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes (Subpart RRR)	No
Magnetic Tape Coating Facilities (Subpart SSS)	No
ndustrial surface coating: Plastic parts for business machines (Subpart TTT)	No
Calciners and Dryers in Mineral Industries (Subpart UUU)	No
Polymeric Coating of Supporting Substrates Facilities (Subpart VVV)	No
Standards of Performance for Municipal Solid Waste Landfills (Subpart WWW)	No
standards of Performance for Small Municipal Waste Combustion Units for Which	No

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (Subpart AAAA)	
Subpart BBBB - Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999	No
Subpart CCCC Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	No
Subpart DDDD Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999	No

APPLICABILITY EXPLANATION CODES

- A Regulation applies to regulatory authority.
- B Rules governing ambient air quality standards and/or monitoring or definitions of criteria for air pollution emergency purposes and do not apply to individual sources.
- C Facility is not in this source category.

4.4 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

Table 4-4 cites the applicable and inapplicable National Emission Standards for Hazardous Air Pollutants given in 40 CFR Part 61.

Table 4-4 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

Rule Description - 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants	Applicable?
Subpart AGeneral Provisions.	No
Subpart BRadon Emissions from Underground Uranium Mines.	No
Subpart C-Beryllium.	No
Subpart D-Beryllium Rocket Motor Firing.	No
Subpart EMercury.	No
Subpart FVinyl Chloride.	No
Subpart H-Emissions of Radionuclides other than Radon from Department of Energy Facilities.	No
Subpart IRadionuclide Emissions from Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities not covered by Subpart H.	No
Subpart JEquipment Leaks (Fugitive Emission Sources) of Benzene.	No
Subpart KRadionuclide Emissions from Elemental Phosphorus Plants.	No
Subpart L-Benzene Emissions from Coke By-Product Recovery Plants.	No
Subpart MAsbestos.	No
Subpart N-Inorganic Arsenic Emissions from Glass Manufacturing Plants.	No
Subpart O-Inorganic Arsenic Emissions from Primary Copper Smelters.	No
Subpart P-Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities.	No
Subpart Q-Radon Emissions from Department of Energy Facilities.	No
Subpart RRadon Emission from Phosphogypsum Stacks.	No
Subpart TRadon Emissions from the Disposal of Uranium Mill Tailings.	No
Subpart VEquipment Leaks (Fugitive Emission Sources).	No

Rule Description - 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants	Applicable?
Subpart WRadon Emissions from Operating Mill Tailings.	No
Subpart Y-Benzene Emissions from Benzene Storage Vessels.	No
Subpart BB-Benzene Emission from Benzene Transfer Operations.	No
Subpart FFBenzene Waste Operations.	No

4.5 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)

Table 4-5 cites the applicable and inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories given in 40 CFR Part 63.

Table 4-5 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Subpart A – General Provisions	No – not in source category
Subpart F – SOCMI	No – not in source category
Subpart G - SOCMI - Process Vents, Storage Vessels, Transfer Operations	No - not in source category
Subpart H - SOCMI - Equipment Leaks	No – not in source category
Subpart I - Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	No - not in source category
Subpart J - Polyvinyl Chloride and Copolymers Production	No – not in source category
Subpart L - Coke Oven Batteries	No - not in source category
Subpart M - Dry Cleaning Facilities Using Perchloroethylene	No – not in source category
Subpart N - Nard and Decorative Electroplating and Anodizing	No - not in source category
Subpart O - Ethylene Oxide Sterilization	No - not in source category
Subpart Q - Industrial Process Cooling Towers	No - not in source category
Subpart R - Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations)	No - not in source category
Subpart S – Pulp and Paper Industry	No – not in source category
Subpart T - Halogenated Solvent Cleaning	No – not in source category
Subpart U – Group I Polymers and Resins	No – not in source category
Subpart W - Epoxy Resins and Non-Nylon Polyamides Production	No – not in source category
Subpart X – Secondary Lead Smelting	No - not in source category
Subpart Y - Marine Tank Vessel Loading Operations	No – not in source category
Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants	No – not in source category
Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants	No – not in source category
Subpart CC - National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries	No – not in source category
Subpart DD – National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations	No – not in source category
Subpart EE - National Emission Standards for Magnetic Tape Manufacturing Operations	No - not in source category

Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities	No - not in source catego
Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities	No - not in source categor
Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)	No - not in source categor
Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations	No - not in source categor
Subpart KK – National Emission Standards for the Printing and Publishing Industry	No - not in source categor
Subpart LL – National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants	No – not in source categor
Subpart MM – National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills	No – not in source categor
Subpart OO – National Emission Standards for Tanks – Level 1	No - not in source categor
Subpart PP – National Emission Standards for Containers	No - not in source categor
Subpart QQ - National Emission Standards for Surface Impoundments	No - not in source categor
Subpart RR – National Emission Standards for Individual Drain Systems	No - not in source categor
Subpart SS — National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process	No – not in source categor
Subpart TT – National Emission Standards for Equipment Leaks – Control Level I	No - not in source categor
Subpart UU - National Emission Standards for Equipment Leaks - Control Level 2 Standards	No - not in source categor
Subpart VV – National Emission Standards for Oil-Water Separators and Organic-Water Separators	No - not in source categor
Subpart WW – National Emission Standards for Storage Vessels (Tanks) – Control Level 2	No - not in source categor
4.5.1.A.1 Subpart XX National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations	No – not in source categor
Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards	No – not in source categor
Subpart CCC – National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Units	No – not in source categor
Subpart DDD - National Emission Standards for Hazardous Air Pollutants for Mineral Wool	No – not in source categor
Subpart GGG - Pharmaceuticals Production	No - not in source categor
Subpart JJJ – Polymer and resins II	No - not in source categor
Subpart HHH - Natural Gas Transmission and Storage	No - not in source categor
Subpart III – Flexible Polyurethane Foam Production	No - not in source categor
Subpart LLL - Portland Cement Manufacturing	No – not in source categor
Subpart MMM – Pesticide Active Ingredient Production	No - not in source categor
Subpart NNN – Wool Fiberglass Manufacturing	No - not in source categor
Subpart OOO – Polymers and Resins, III Amino Resins, Phenolic Resins	No - not in source categor
Subpart PPP – Polyether Polyols Production	No – not in source categor
Subpart QQQ - Primary Copper	No - not in source categor
Subpart RRR - Secondary Aluminum	No - not in source categor
Subpart TTT – Primary Lead Smelting	No – not in source categor
Subpart UUU – Petroleum Refineries	No not in source categor
Subpart VVV – POTWs	No - not in source categor
Subpart XXX - Ferroalloys Production	No - not in source categor
Subpart AAAA – Municipal Solid Waste Landfills	No - not in source categor
Subpart CCCC - Manufacturing Nutritional Yeast	No – not in source categor
Subpart GGGG – Solvent Extraction for Vegetable Oil	No – not in source categor
	No – not in source categor
where HHHH - Wet Formed Fiberglass Mat Production	No – not in source categor
Subpart HHHH – Wet Formed Fiberglass Mat Production	interestative in the contract of the contract
Subpart JJJJ - Paper and Other Web	No - not in source estagon
Subpart JJJJ – Paper and Other Web Subpart NNNN – Large Appliance	No – not in source categor
Subpart JJJJ – Paper and Other Web Subpart NNNN – Large Appliance Subpart SSSS – Metal Coil	No - not in source categor
Subpart JJJ – Paper and Other Web Subpart NNNN – Large Appliance Subpart SSSS – Metal Coil Subpart TTTT – Leather Finishing Operations	No – not in source categor No – not in source categor
Subpart JJJ – Paper and Other Web Subpart NNNN – Large Appliance Subpart SSSS – Metal Coil Subpart TTTT – Leather Finishing Operations Subpart UUUU – Cellulose Production Manufacturing	No – not in source categor No – not in source categor No – not in source categor
Subpart JJJ – Paper and Other Web Subpart NNNN – Large Appliance Subpart SSSS – Metal Coil Subpart TTTT – Leather Finishing Operations	No – not in source categor No – not in source categor

4.6 Specific Applicable Requirement Discussion

Table 4-6 below discusses in more detail the specific applicable and inapplicable requirements for RDO:

Table 4-6 Specific Applicable and Inapplicable Requirements

Citation	Explanation of Applicability
40 CFR 60.40b Subpart Db. Standards of Performance for Industrial-Commercial- Institutional Steam Generating Units.	60.40b(a): Subpart Db applies to steam generating units that commenced construction, modification, or reconstruction after June 19, 1984, and that have a heat input capacity greater than 100 MMBtu/hr. The maximum steam generating capacity of the boiler is 150 MMBtu/hr. 60.42b(a): By installing a scrubber to control sulfur dioxide emissions, RDO will comply with the sulfur dioxide standards of 60.42b (90 percent reduction). The new NSPS (92% reduction) does not apply to boiler No. 1 since the boiler was not modified after February 28, 2005. 60.43b(b): Particulate matter shall not exceed 0.10 lb/MMBtu heat input. The new PM standard of 0.03lb/MMBtu heat input does not apply to RDO because the re-rating is not considered to be a modification since the boiler is being re-rated to its per-February 28, 2005 configuration. The boiler was already designed to operated at 148 MMBtu/hr. Additionally, boiler No. 1 has always had the capability to burn #6 residual fuel. 60.43b(f): Opacity shall not exceed 20% (6-minute average), except for one 6-minute period per hour of not more than 27% opacity. 60.44b(a): The NOx emissions at the facility shall not exceed: • 0.40 lb/MMBtu heat input for burning residual fuel at high heat release rate. • 0.30 lb/MMBtu heat input for burning residual fuel at low heat release rate.
40 CFR 60.40b Subpart Kb. Standards of Performance for Volatile Organic Liquid Vessels for which Construction, Reconstruction or Modification Commenced After July 23, 1984.	60.110b(b) and (c): Storage vessels with a capacity of less than 19,800 gallons and stage vessels with a capacity of greater than 19,800 gallons and less than 39,890 gallons and with a maximum true vapor pressure of less than 15 kilopascals (kPa) are exempt from the general provisions of 40 CFR 60 and from most of the portions of Subpart Kb. Tanks equal to or greater than 39,890 gallons but less than 3.5 kPa are also exempt from most Kb portions. The two tanks are 30,000 gallons each, but the maximum pressure is 0.055 kPa. Therefore the tanks at the facility qualify for exemptions except as noted below: • 60.116b(b): The facility will keep readily accessible records showing the dimensions of the tanks and an analysis showing the capacity of the tanks. • These records will be kept at the facility for the life of the tanks as provided in 60.116b(a).
40 CFR 61 & 63 National Emission Standards for Hazardous Air Pollutants & MACT	Beryllium is emitted in very small quantities but exceeds the significant level of 0.0004 tons / year. Modeling was performed as required when significant levels are exceeded. However, the ambient toxic screening level for beryllium is met and the beryllium NESHAP applies to specific types of facilities, to which RDO does not belong.

5.0 Emissions Information and Documentation

This section includes all criteria and toxic air pollutant calculations.

5.1 Emission Inventory

Table 5-1 below shows the emission inventory for criteria pollutants.

Table 5-1 Emission Inventory for RDO

Source	Pollutant												
	Р	M	PN	PM-10 \		/oc	S	SO ₂		NOx		co	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	
Boiler No. 1	21.66	94.85	21.66	94.85	1.33	5.84	28.60	125.27	48.93	214.30	5.21	22.80	
Boiler No. 2	0.05	0.21	0.05	0.21	0.04	0.15	0.004	0.02	0.64	2.79	0.54	2.35	
Cyclone	0.13	0.57	0.07	0.29									
Drum Dryer 1	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 2	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 3	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 4	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 5	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 6	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 7	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 8	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 9	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 10	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 11	1.95	8.54	1.95	8.54			0.01	0.05					
Drum Dryer 12	1.95	8.54	1.95	8.54			0.01	0.05					
National Dryer Process Emissions	1.71	7.49	1.71	7.49			0.081	0.35					
Fluidized Bed Dryer	3.53	15.48	3.53	15.48	0.02	0.11	0.09	0.38	0.67	2.94	0.38	1.66	
Flake Packaging Bulk Line	0.120	0.53	0.120	0.53									
Flake Packaging Line	0.08	0.35	0.080	0.35									
Flake Packaging Torit Line	0.08	0.35	0.08	0.35									
Flake Packaging Drum Negative Air Baghouse	0.180	0.79	0.180	0.79									
National Dryer A1	0.03	0.12	0.03	0.12	0.02	0.09	0.06	0.26	0.55	2.39	0.30	1.32	
National Dryer A2	0.03	0.12	0.03	0.12	0.02	0.09	0.06	0.26	0.55	2.39	0.30	1.32	
National Dryer B	0.03	0.12	0.03	0.12	0.02	0.09	0.06	0.26	0.55	2.39	0.30	1.32	
National Dryer C	0.03	0.12	0.03	0.12	0.02	0.09	0.06	0.26	0.55	2.39	0.30	1.32	
Propane Heaters	0.03	0.12	0.03	0.12	0.02	0.09	0.06	0.26	0.68	3.00	0.30	1.32	
Tanks						0.0012							

					****				*************************			
				}					i .			1
man are wint at t	E4 00	000 74	61.01	223 43	1.49	6.53	29.19	407 07	53 11	222 60	W 00	00 40
1 () 1 () 1	51.08	223./	31.01	223.43	1.43	0.00	20.10	127.87	53.11	232.60	7.63	33.42
4 4% C 8.48W											anno de la companya della companya d	

5.2 **Emission Calculations**

Process Weight

The following process weight calculations have been made:

Table 5-2 Process Weight Calculations

	Process Weight,	E, Emission		
Source	lb/hr*	Limit, Ib/hr	PM, lb/hr	Meet E?
	4 7 7 7	0.70	0.40	
Cyclone	1,750	3.972	0.13	Yes
Drum Dryer 1	7,500	9.512	8.54	Yes
Drum Dryer 2	7,500	9.512	8.54	Yes
Drum Dryer 3	7,500	9.512	8.54	Yes
Drum Dryer 4	7,500	9.512	8.54	Yes
Drum Dryer 5	7,500	9.512	8.54	Yes
Drum Dryer 6	7,500	9.512	8.54	Yes
Drum Dryer 7	7,500	9.512	8.54	Yes
Drum Dryer 8	7,500	9.512	8.54	Yes
Drum Dryer 9	7,500	9.512	8.54	Yes
Drum Dryer 10	7,500	9.512	8.54	Yes
Drum Dryer 11	7,500	9.512	8.54	Yes
Drum Dryer 12	7,500	9.512	8.54	Yes
Fluidized Bed Dryer	10,000	11.000	3.50	Yes
National Dryer	7,500	9.512	1.71	Yes
Flake Packaging Bulk Line	12,000	11.513	0.120	Yes
Flake Packaging Line	8,000	9.887	0.35	Yes
Flake Packaging Torit Line	8,000	9.887	0.35	Yes
Flake Packaging Drum Negative Air Baghouse	18,000	12.741	0.79	Yes

 $E = 0.045(PW)^{0.60}$ $E = 1.10*(PW)^{0.25}$

E= Emission Limit < 9,250 lb/hr PW

E= Emission Limit ≥ 9,250 lb/hr PW

^{*}A ratio of 5:1 raw/final product was used for the dryers

Grain Loading

Table 5-3 below shows the estimated grain loading concentrations for the boilers, in accordance with IDAPA 58.01.01.676 and 677. The table below shows that RDO meets fuel combustion grain loading requirements.

Table 5-3 Grain Loading Emissions

Source	PM, lb/hr	Flow rate, dscf/m @3% O ₂	Grain Loading, g/dscf @ 3%	Grain Loading Standard, grain/dscf	Meet Grain Loading Standard?
Boiler No. 1, Residual	10.05	25,758	0.0279	0.05	Yes
Boiler No. 1, Propane	0.55	24,407	0.0046	0.015	Yes
Boiler No. 2, Propane	0.05	1400	0.0052	0.015	Yes
Fluidized Bed Dryer*	0.03	763	0.0052	0.015	Yes
Propane Heater 1	0.01	203	0.0052	0.015	Yes
Propane Heater 2	0.01	203	0.0052	0.015	Yes
Propane Heater 3	0.01	203	0.0052	0.015	Yes
Dryer A1*	0.03	610	0.0052	0.015	Yes
Dryer A2*	0.03	610	0.0052	0.015	Yes
Dryer B*	0.03	610	0.0052	0.015	Yes
Dryer C*	0.03	610	0.0052	0.015	Yes

^{*}Exhaust flow rates for dryers represent combustion exhaust only.

Emission Calculations

The detailed emission estimates are shown in the following sections. Toxic air pollutants (TAPs) are also included in this section.

CRITERIA POLLUTANTS

Boiler No. 1 - Oil 1.75% Sulfur

Boiler No. 1 - Residual Oil (1.75% Sulfur)

Criteria Pollutant Estimates, >100 MMBTU/hr (AP-42, Tables 1.3-1, 1.3-2, and 1.3-3, 9/98)

	and the second s	A STATE OF THE PARTY OF THE PAR		Polluta	nt	ACCOUNT OF THE PARTY OF THE PAR
	SO ₂		NO _X	co	PM/PM-10 ^a	Vocº
Emission Factor,		ng migalang mengangan pangangan pangangan pangangan pangangan pangangan pangangan pangangan pangangan panganga Pangangangan pangangan pangangan pangangan pangangan pangangan pangangan pangan pangangan pangangan pangangan				эм он эмгийский магийский магийский магий
lb/1,000 gal	157	S ^c	47	5	20.8025	1.28
					15.58	
% S in fuel:		MINISTER PROPERTY COMP	and a commence of the annihilation of the anni	distinction of the second seco		
1.75		overa province construction and				
Scrubber Efficiency	0000000000					
90%	Security of the security of th		especial control of the control of t			
25%						
Maximum ^d gal/day		~~~				
24,984						
Maximum gal/yr						
9,119,160						
Emissions, lb/hr		***************************************				
No control	286.01		48.93	5.21	21.66	1.33
Emissions, lb/hr	Anna Control of the C		and the second of the second o			***************************************
With Scrubber ^e	28.60				12.16	
Emissions, lb/day		NO PARAMETERS		Section		
No control	6,864		1,174.2	124.92	519.73	31.98
Emissions, lb/day						***************************************
With Scrubber ^f	686.44				291.94	
Emissions, ton/yr	- Anna Carlotte Company of the	ozwy i chony o			A COLOR DE LA COLO	
No control	1,253	tana on on one or or or	214	22.80	94.9	5.84
Emissions, ton/yr						
With Scrubber	125	escape a servicio de la companya de	of communication and communica		53.3	
NSPS Subpart Db	90%		0.4		0.1	
Requirement	reduction		lb/MMBTU ^g	NA	lb/MMBTU	NA
VSPS Subpart Db	YES		YES	NIA	New W	
Requirement Met?	1 = 5		159	NA	YES	NA

Notes:

^aTop PM emission factor is based on AP-42 for the purpose of establishing PTE totals

Bottom # is based on November 3-4, 2006 source test results for NSPS compliance determinations

^bVOC assumed to be equal to TOC. Boiler size = industrial >100 MMBTU/hr

[°]S = weight % sulfur in fuel

^dBoiler rated at 150 MMBtu/hr; Heat content of residual oil fuel = 18,000 Btu/lb;

^eScrubber efficiency for PM removal is 8 percent

^fScrubber efficiency for SO₂ removal is 90 percent

⁹ NSPS NOx standard based on boiler having high heat release rate All calculations based on 8760 hours of operation each year

Boiler No. 1 - Residual Oil (1.6% Sulfur)

Criteria Pollutant Estimates, >100 MMBTU/hr (AP-42, Tables 1.3-1, 1.3-2, and 1.3-3, 9/98)

			Pollutan		
	SO ₂	NOX	СО	PM/PM-10 ^a	voc°
Emission Factor, lb/1,000 gal	157 S°	47	5	19,424	1.28
% S in fuel:				15.58	
1.60 Scrubber Efficiency 90% 25%					
Maximum ^d gal/day 24,984					
Maximum gal/yr 9,119,160					
Emissions, lb/hr No control	261.50	48.93	5.21	20.22	1.33
Emissions, lb/hr With Scrubber ^e	26.15			12.16	
Emissions, lb/day No control	6,276	1,174.25	124.92	485.29	31.98
Emissions, lb/day With Scrubber ^f	627.60			291.94	
Emissions, ton/yr No control	1,145	214	22.80	88.6	5.84
Emissions, ton/yr With Scrubber	115			53.3	
NSPS Subpart Db Requirement	90% reduction	0.4 lb/MMBTU ^g	NA	0.1 lb/MMBTU	NA
NSPS Subpart Db Requirement Met?	YES	YES	NA	YES	NA

Notes:

^aTop PM emission factor is based on AP-42 for the purpose of establishing PTE totals
Bottom # is based on November 3-4, 2006 source test results for NSPS compliance determinations

bVOC assumed to be equal to TOC. Boiler size = industrial >100 MMBTU/hr

[°]S = weight % sulfur in fuel

^dBoiler rated at 150 MMBtu/hr; Heat content of residual oil fuel = 18,000 Btu/lb;

^{*}Scrubber efficiency for PM removal is 8 percent

^fScrubber efficiency for SO₂ removal is 90 percent

⁹ NSPS NOx standard based on boiler having high heat release rate All calculations based on 8760 hours of operation each year

Boiler Propane

Criteria Pollutant Estimates, >100 MMBTU/hr (AP-42, Tables 1.5-1, 10/96)

				Pollutant		and in commence of the comment of th
an a	SO ₂		NOX	co	PM ^a	VOC®
Emission Factor, lb/1,000 gal	0.10	Sc	19	3.2	0.6	0.5
S = 15						
Scrubber Efficiency 90% 25%						
Maximum ^d gal/day		-				Appropriate the Control of the Contr
38,304						
Maximum gal/yr						
13,980,960						
Emissions, lb/hr No control	2.39	NO PROTECTION OF NO STATE OF S	30.32	5.11	0.96	0.80
Emissions, lb/hr With Scrubber ^e	0.24			Proposition of the Control of the Co	0.72	
Emissions, lb/day No control	57.46		727.78	122.57	22.98	19.15
Emissions, lb/day With Scrubber ^f	5.75				17.24	
Emissions, ton/yr No control	10.49		132.8	22.4	4.2	3.50
Emissions, ton/yr With Scrubber	1.049				3.1	
NSPS Subpart Db	90%	·	NJΛ	N.A	0.1	A I A
Requirement NSPS Subpart Db Requirement Met?	reduction YES		NA NA	NA NA	Ib/MMBTU YES	NA NA

Notes:

Association Engineering Data Book, Standard for Commercial Grade Propane)

All calculations based on 8760 hours of operation each year

^aPM factor is sum of filterable PM plus condensable PM.

^bVOC assumed to be equal to TOC. Boiler size = industrial >100 MMBTU/hr

[°]S = sulfur fuel content in grains/100 ft³, assumed to be 15 (Reference: Gas Processors

^dBoiler rated at 150 MMBtu/hr; Heat content of propane fuel = 94,000 Btu/gal;

^eScrubber efficiency for PM removal is 8 percent

^fScrubber efficiency for SO₂ removal is 90 percent

Boiler No. 2 - Natural Gas

Criteria Pollutant Estimates, <100 MMBTU/hr (AP-42, Tables 1..4-1 and 1.4-2, 9/98)

			Pollut	ant	
	SO ₂	NO _X	CO	PM/PM-10 ^a	VOC
Emission Factor, lb/10 ⁶ scf	0.6	100	84	7.6	5.5
Maximum ^b scf/hr 6,381					
Maximum hrs/yr 8,760					
Emissions, lb/hr No control	0.0038	0.64	0.54	0.05	0.04
Emissions, ton/yr No control	0.017	2.79	2.35	0.21	0.15

Notes:

^aPM factor is sum of filterable PM plus condensable PM.

^bBoiler capacity is 6.7 MMBTU/hr, Heat content of natural gas = 1050 BTU/scf;

Cyclone

			Process I	Emissions			
	Emiss	sion Factor	r: AP-42 T	able 9.9.1-2	l, Flaker Cy	/clone	
PM			·				
Emission							
Factor	PM-10	Product,	Product,			PM-10,	PM-10,
lb/ton	EF, lb/tona	lb/hr	tpy ^b	PM, lb/hr	PM, tpy ^d	lb/hr	tpy
0.15	0.08	1,750	7,665	0.13	0.57	0.07	0.29

^aPM-10 can be estimated as 50% of PM per AP-42 Table 9.9.1-2, footnote g

^bBased on 8,760 hours of operation per year

Drum Dryers
PM Emission Factor is Based on April 7, 2005 Letter from DEQ to BLF

PM, lb/hr PM, tpy ^b PM-10, lb/hr 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95 1.95 8.54 1.95			PM-10	Product	Product	en esta esta esta esta esta esta esta esta			
Factor Rate Rate lb/ton lb/ton tpyb PM, lb/hr PM, tpyb PM-10, lb/hr 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570	·	PM Emission	Emission	Throughput	Throughput				
lb/ton lb/ton³ lb/ton³ <th< td=""><td></td><td>Factor</td><td>Factor</td><td>Rate</td><td>Rate</td><td></td><td></td><td></td><td></td></th<>		Factor	Factor	Rate	Rate				
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1	Main Stack	ib/ton	lb/ton ^a	lb/hr	tpy ^b	PM, Ib/hr	PM, tpy	PM-10, lb/hr	PM-10, tpy ^b
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1	Drum Dryer 1	2.60	2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1	Drum Dryer 2		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.952.602.601,5006,5701.958.541.95	Drum Dryer 3		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 1	Drum Dryer 4		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 4 common 1-12: 18,000 78,840 23.40 73.40 73.40	Drum Dryer 5		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 4 rums 1-12: 18,000 78,840 23.40 73.40 23.40	Drum Dryer 6		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 drums 1-12: 18,000 78,840 23.40 102.49 23.40	Drum Dryer 7		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 1,500 6,570 1.95 8.54 1.95 drums 1-12: 18,000 78,840 23.40 73.40	Drum Dryer 8		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 drums 1-12: 18,000 78,840 23.40 73.40 23.40	Drum Dryer 9		2.60	1,500	6,570	1.95	8.54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 2.60 2.60 1,500 6,570 1.95 8.54 1.95 drums 1-12: 18,000 78,840 23.40 102.49 23.40	Drum Dryer 10		2.60	1,500	6,570	1.95	8,54	1.95	8.54
2.60 2.60 1,500 6,570 1.95 8.54 1.95 Il drums 1-12: 18,000 78,840 23.40 102.49 23.40	Drum Dryer 11		2.60	1,500	6,570	1.95	8.54	1.95	8.54
: 18,000 78,840 23.40 102.49 23.40	Drum Dryer 12		2.60	1,500	6,570	1.95	8,54	1.95	8.54
	Tote	31 drums 1-12:		18,000	78,840	23.40	102.49	23.40	102.49

^aPM-10 emission factor assumed to be equal to PM emission factor per December 23, 2004 Source Test Report.

^bAnnual production = 8,760 hours per year.

PM Emission Factor is Based on April 7, 2005 Letter from DEQ to BLF National Dryer Process Emissions

100 m					
7.49	1.71	6.570	1500		e do
1.87	0.43	1,643	375	2.28	National Dryer C
1.87	0.43	1,643	375	2.28	National Dryer B
1.87	0.43	1,643	375	2.28	National Dryer A2
1.87	0.43	1,643	375	2.28	National Dryer A1
(py	7	tpy [□]	ID/hr	lb/ton ^a	A di dia di di mandi na mangana mangana na mangana na pangana na mangana na mangana na mangana na mangana na d
Ē	Emission Rate	Throughput Rate Emis	Throughput Rate	Emission Factor	
0 - M - M - M - M - M - M - M - M - M -	PM/PM-10	Product	Product	PW/PM-10	

^aPM-10 emission factor assumed to be equal to PM emission factor per December 23, 2004 Source Test Report.

^bAnnual production = 8,760 hours per year.

Fluidized Bed Dryer

Criteria Pollutant Estimates for Fuel Combustion, <100 MMBTU/hr (Source: AP-42, Tables 1.4-1, 1.4-2, 9/98 edition and 1.5-1, 10/96 edition)

		Natural Gas					Propane	ne
Монтой дання разделення принцення 		S.J.,	Pollutant					ď
	\$O ₂	NOX	8	PM/PM-10	VOC		SO ₂ ª	8
Emission Factor,	1	1				Emission Factor,	-	
1b/10° scf	9.0	100	84	7.6	5.5	lb/1,000 gal	0.10 S ⁵	4
					enjanovanjen			
						S=		
						5		
Maximum MMscf/hr						Maximum gal/hr	Openingen den de constitución de constitución de constitución de constitución de constitución de constitución d	
4.50E-03						48.00		
Maximum hrs/yr						Maximum hrs/yr		
8,760					***************************************	8,760	eministrativa de la composita	
Emissions, lb/hr						Emissions, lb/hr	Andre de l'estre de manueux en recent de l'estre de l'Allière de l'Allière de l'estre de	
No control	0.003	0.45	0.38	0.03	0.02	No control	0.07	9.0
Emissions ton/wr		определения учение.			***************************************	Emissions tour		
No control	0.012	1.97	1.66	0.15	5	No control	0.32	2.9
		финес		***************************************	мукантом	ng galanta		

		Pollutant	Itant		
	${ m SO}_2^a$	×o _N	္ပ	PIM/PM-10 VOC	, 200X
Emission Factor, lb/1,000 gal	0.10 S ^b	41	£.	0.4	0.5
S=					
15					
Maximum gal/hr					
48.00					
Maximum hrs/yr					
8,760					
Emissions, Ib/hr					
No control	0.07	0.67	0.09	0.02	0.02
Emissions, ton/yr No control	0.32	2.94	0.40	0.08	0,

		Ĕ	Process Emissions	ns	eranos de la companion de la c		
	PM Emissic	on Factor is I	PM Emission Factor is Based on April 7, 2005 Letter from DEQ to BLF	7, 2005 Lei	tter from C	EQ to BI	щ
PM Emission Factor	PM-10 EF,	Product,				PM-10,	man production of the control of the
lb/ton	lb/ton ^c	lb/hr	Product, tpy PM, Ib/hr PM, tpy ^d Ib/hr	PM, 15/hr	PM, tpy ^d	lb/hr	PM-10, tpy
3.50	3.50	2,000	8,760	3.50	15.33 3.50	3.50	15.33

	ŏ,	lon/yr	2.94
	_		-
	NOX,	P L	0.67
:missions):		CO, ton/yr	1.66
rocess E	ဂ်	lb/hr	0.38
ustion + F	SO ₂ ,	tonlyr	0.32
ions (Combi		SO ₂ , Ib/hr	0.07
dmum Emiss	PM-10,	tonlyr	15.48
Total May	PM-10,	Para para manana	3.53
		PM, ton/yr	15.48
		PM, lb/hr	3.53

, 00 00 00 Ib/hr | ton/yr

VOC,

0.02

Fuel combustion assumed to run 24 hr/day FBD size = 4.5 MMBTU/hr

^aS = sulfur fuel content in grains/100 ft³, assumed to be 15 (per the Gas Processors Association Engineering Data Book, standard for commercial grade propane).

^bVOC assumed to be equal to TOC.

^c PM-10 emission factor assumed to be equal to PM emission factor per December 23, 2004 Source Test Report.

^dAnnual production = **8,760** hours per year.

SO₂ EMISSIONS FROM SULFITE IN DRYING PROCESS

Source	Fraction of Product Having Sulfite (Ib Sulfite Product/Ib Product)	Concentration (lb Sulfite/lb Sulfite Product) ^a	Fraction of Sulfite Converted to SO ₂ (lb SO ₂ /lb Sulfite) ^b	Throughput (lb Product/hr)	SO ₂ Emissions (lb/hr)	SO ₂ Emissions (t/yr)
Drum Dryer 1	0.12	9000:0	0.10	1500	0.011	0.047
Drum Dryer 2	0,12	0.0006	0,10	1500	0.011	0.047
Drum Dryer 3	0.12	0.0006	0,0	1500	0.0	0.047
Drum Dryer 4	0.12	0.0006	0.10	1500	0.0	0.047
Drum Dryer 5	0.12	0.0006	0.10	1500	2	0.047
Drum Dryer 6	0.12	0.0006	0.10	1500	50.00	0.047
Drum Dryer 7	0.12	0.0006	0.10	1500	0 0 0 1 1	0.047
Drum Dryer 8	0.12	0.0006	0,10	1500	0.01	0.047
Drum Dryer 9	0.12	0.0006	0.10	1500	500	0.047
Drum Dryer 10	0.12	0.0006	0,0	1500	5	0.047
Drum Dryer 11	0.12	0.0006	0.10	1500	0 0 0 1	0.047
Drum Dryer 12	0.12	9000.0	0.10	1500	0.0	0.047
National Dryer A1	06.0	0.0006	0,10	375	0.020	0.089
National Dryer A2	06.0	0.0006	0.10	375	0.020	0.089
National Dryer B	06:0	9000.0	0.10	375	0.020	0.089
National Dryer C	06:0	0.0006	0	375	0.020	0.089
Fluidized Bed Dryer	0.12	0.0006	0.10	2000	0.014	0.063
Ę				TOTAL =	0.23	0.99

^aWorst-case scenario. Concentration varies between 0.0002 and 0.0006 lb Sulfite/lb Sulfite Product. ^bFrom Basic American Foods Tier II Operating Permit Application - Table C-6.

Flake Packaging

PM Emission Factor is Based on April 7, 2005 Letter from DEQ to BLF

	Controlled PM Emission Factor Ib/ton	Controlled PM- 10 Emission Factor lb/ton	Product Throughput Rate Ib/hr	Product Throughput Rate tpy ^b	PM Emission Rate Ib/hr	PM Emission Rate tpy ^b	PM-10 Emission Rate Ib/hr	PM-10 Emission Rate tpy ^b
Flake Packaging								
Bulk Line	0.020	0.02000	12,000	52,560	0.120	0.53	0.120	0.53
Flake Packaging								
Line	0.020	0.02000	8,000	35,040	0.080	0.35	0.080	0.35
Flake Packaging					жения отношения в предоставления в пред			
Torit Line	0.020	0.02000	8,000	35,040	0.080	0.35	0.080	0.35
Flake Packaging							transferration of the common o	
Drum Negative Air								
Baghouse	0.020	0.02000	18,000	78,840	0.180	0.79	0.180	0.79
Total					0.46	2.01	0.46	2.01

^aPM-10 emission factor assumed to be equal to PM emission factor per December 23, 2004 Source Test Report.

^bAnnual production = **8760** hours per year

NATIONAL DRYERS

Criteria Pollutant Estimates, AP-42, Tables 1.5-1, 10/96

Criteria Pollutant Estimates, AP-42, Tables 1.4-1 and 1.4-2, 9/98

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- 1
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1

Stage A1

	م	Propane				
		Poll	Pollutant			
	SO ₂	Ň	8	PM	VOC	
and the second s						
Emission Factor, lb/1,000 gal	0.1 S ^b	7	<u>0</u>	4.0	O W	Emissio Ib/10 ⁶ sr
S=						
52						
Maximum gal/hr						Maximu
36						8
Maximum hrs/yr						Maximu
8,760						
Emissions, lb/hr						Emissio
No control	90.0	0.55	0.07	0.02	0.02	No cont
Emíssions, ton/yr No control	0.26	2.39	0.32	0.07	0.09	Emission No contri
-		_				

	nten	Natural Gas			
		Poll	Pollutant		
	SO ₂	Š	8	PM/PM-10	200
Emission Factor,					
lb/10 ⁶ scf	9.0	8	84	7.6	5,5
and the control of th					
Maximum MMscf/hr					
3.60E-03					-
Maximum hrs/yr			NON Primary and mississipping		
8,760					
Emissions, lb/hr					
No control	0.002	0.36	0.30	0.03	0.02
MANOQUO NO CONTRACTO DE LO CON					
Emissions, ton/yr	0000	r X	1 30		000
)	2	70.	7	5

					EA	NATIONAL DRYERS	YERS					
Crife	Criteria Pollutant Estimates, AP-42, Tables 1.5-1, 1	es, AP-42,	Tables 1.5-1	, 10/96			Criteria	Criteria Pollutant Estimates, AP-42, Tables 1.4-1 and 1.4-2, 9/98	P-42, Tables	s 1.4-1 and	1.4-2, 9/98	
				mal makemproprishor un anno de de la dema de mary class		Stage A2						ACT AND MINES CO. A MANUFACTURE STREET, ASSESSMENT AND ASSESSMENT AND ASSESSMENT ASSESSM
	Ğ	Propane						Natu	Natural Gas			
		Polli	Pollutant			green normania de	L,		Pollutant	ntant		
	SO ₂	×ON	00	Z.	NOC			SO ₂	NOX	8	PM/PM-10	VOC
Emission Factor,							Emission Factor,					***************************************
lb/1,000 gal	0.1 S ^b	14	ō;	0.4	0.5	의	lb/10 ⁶ scf	9.0	100	84	7.6	5.5
S=					-							aque anie amais imperience de describuares
12							-		-			
Maximum gal/hr						IΣ	Maximum MMscf/hr					
39							3.60E-03					
Maximum hrs/yr						ΙΞ	Maximum hrs/yr					
8,760						********	8,760	enterior de des des des des des des des des des				
Emissions, lb/hr						<u> </u>	Emissions, Ib/hr					
No control	0.06	0.55	0.07	0.02	0.02	z	No control	0.002	0.36	0.30	0.03	0.02
Emissions, ton/yr No control	0.26	2.39	0.32	200	60 0	ũ Ž	Emissions, ton/yr	500 0	ر مر	130	Ç	000
		;	}))	?	P. W. Salamananana		200	3	40.	Ā	0

								_									en e	****
	1.4-2, 9/98				PM/PM-10		7.6									0.03	***************************************	0.12
	s 1.4-1 and			ıtant	8		84									0.30		1.32
	2-42, Table:		Natural Gas	Pollutant	XOX		601									0.36		1.58
	Criteria Pollutant Estimates, AP-42, Tables 1.4-1 and 1.4-2, 9/98		Natur		SO ₂		9.0						-			0.002	ака жанара осторого	0.00
NATIONAL DRYERS	Criteria F	*		L		Emission Factor,	lb/10 ⁶ sof		~~~		Maximum MMscf/hr	3.60E-03	Maximum hrs/yr	8,760	Emissions, lb/hr	No control	ористрана и продости подости п	Emissions, ton/yr No control
NALD		Stage B			legenger er en le		non-transference	eses establica de la constantina de la		ouncement	hoon-east-		Fariya ara	ogeneral)				
NATIO					VOC		0.5	***************************************			***************************************				**************************************	0.02		60.0
	, 10/96				PM		9.4									0.02	ghalleng ar menuncung pengendenden	0.07
	ables 1.5-1			ıtant	8		1.9							***************************************	***************************************	0.07		0.32
	es, AP-42, 7		Propane	Pollutant	NOX		4									0.55		2.39
	Criteria Pollutant Estimates, AP-42, Tables 1.5-1, 10/96		ď		202		0.1 S ^b									90:0		0.26
	Crite			L		Emission Factor.	lb/1,000 gal			15	Maximum gal/hr	39	Maximum hrs/yr	8,760	Emissions, lb/hr	No control		Emissions, ton/yr No control

7000

5.5

0.09

0.02

NATIONAL DRYERS

Criteria Pollutant Estimates, AP-42, Tables 1.5-1, 10/96

Criteria Pollutant Estimates, AP-42, Tables 1.4-1 and 1.4-2, 9/98

Stage C

	F	Propane			
		Poll	Pollutant		
	SO ₂	NOx	00	PM	, NOC
Emission Factor,	J				
lb/1,000 gal	0.1 S ^a	14	1.9	0.4	0.5
15					
num gal/hr					
39					
num hrs/yr					
8,760					
Emissions, lb/hr					
No control	0.06	0.55	0.07	0.02	0.02

Emissions, ton/yr				B-WO-ENOWERLY.	erecens and a second
No control	0.26	2.39	0.32	0.07	60.0

	Natu	Natural Gas			
		Pollu	Pollutant		
	SO ₂	×ON	8	PM/PM-10	VOC
Emission Factor,					
lb/10 ⁶ scf	0.6	9	84	2.6	5.5
Maximum MMscf/hr					
3.60E-03					
Maximum hrs/yr					
8,760					
Emissions, lb/hr					
No control	0.002	0.36	0.30	0.03	0.02
Emissions, ton/yr	(4	;		,
No control	800°C	1.58	1.32	0.12	0.09
	•	,			

Total Maximum Emissions:

on the second			PM-10,	PM-10,		SO ₂ ,				Š		VOC
	PM, lb/hr	PIM, ton/yr	D/hr	ton/yr	SO ₂ , lb/hr	ton/yr	CO, Ib/hr	CO, ton/yr	NOx, lb/hr	ton/yr	VOC, Ib/hr	ton/yr
National Dryer A1	0.03	0.12	0.03	0.12	90:0	0.26	0.30	1.32	0.55	2.39	0.02	0.09
National Dryer A2	0.03	0.12	0.03	0.12	90:0	0.26	0.30	1.32	0.55	2.39	0.02	0.09
National Dryer B	0.03	0.12	0.03	0.12	90.0	0.26	0.30	1.32	0.55	2.39	0.02	0.09
National Dryer C	0.03	0.12	0.03	0.12	90.0	0.26	0.30	1.32	0.55	2.39	0.02	60.0

Note: Burner Capacity = 3.6 MMBTU/dryer

 a VOC assumed to be equal to TOC. b S = sulfur fuel content in grains/100 ft 3 , assumed to be 15 (per the Gas Processors Association Engineering Data Book, standard for commercial grade propane).

SPACE HEATERS

Criteria Pollutant Estimates, AP-42, Tables 1.5-1, 10/96

Criteria Pollutant Estimates, AP-42, Tables 1.4-1 and 1.4-2, 9/98

Natural Gas

Propane Heaters 1, 2 and 3				Emission Fa lb/10 ⁶ scf			Maximum M	3.60E	Maximum hr	8,76	Emissions, II	No control		Emissions, to
Heater	Company													
Propane			VOCa	0.5								0.05		0.09
			PM	0.4								0.02		0.07
		ant	99	9								0.07		0.32
	Propane	Pollutant	× NON	4								0.55		2.39
	Prof)2	ŝ								9		9.
			SO ₂	0							njesnosov v	0.00	international philosophic on process conse	0.26
				Emission Factor, lb/1,000 gal	S=	15	Maximum gal/hr	36	Maximum hrs/yr	8,760	Emissions, lb/hr	No control		Emissions, ton/yr No control

		Poll	Pollutant		
	SO_2	×ON	99	PM/PM-10	VOC
Emission Factor,		ALCOVACIONO DE CONTRACTOR DE C		-	
lb/10 ⁶ scf	9.0	190	84	9.7	5.5
Maximum MMscf/hr					
3.60E-03					
Maximum hrs/yr					
8,760					
Emissions, Ib/hr		(
No control	0.002	0.68	0.30	0.03	0.02
Emissions, ton/yr	C	Ç	, ,	ć	6
5) () ()	90.5	1.32	7	0.08
		£		4	-

Total Maximum Emissions:

- 00 00	ton/yr	0.09
000	TH/QI	0.02
NOX	ton/yr	3.00
NOX,	lb/hr	0.68
	CO, ton/yr	1,32
	CO, lb/hr	0:30
SO_2	ton/yr	0.26
SO_{2}	lb/hr	0.06
PM-10,	ton/yr	0.12
PM-10,	lb/hr	0.03
	PM, ton/yr	0.12
	PM, lb/hr	0.03
and a very second		Propane Heaters

Note: Capacity = 1.2 MMBTU/propane heater

 $^{^{8}\}text{VOC}$ assumed to be equal to TOC. ^{12}VOC = sulfur fuel content in grains/100 ft 3 , assumed to be 15 (per the Gas Processors Association Engineering Data Book, standard for commercial grade propane).

Process Weight Calculations

	Process Weight,	E, Emission Limit,		
Source	lb/hr*	lb/hr	PM Emissions, lb/hr	Meet E?
eta ferrando esta primitar esta esta esta esta esta esta esta esta				
Cyclone	1,750	3.972	0.13	Yes
Drum Dryer 1	7,500	9.512	8.54	Yes
Drum Dryer 2	7,500	9.512	8.54	Yes
Drum Dryer 3	7,500	9.512	8.54	Yes
Drum Dryer 4	7,500	9.512	8.54	Yes
Drum Dryer 5	7,500	9.512	8.54	Yes
Drum Dryer 6	7,500	9.512	8.54	Yes
Drum Dryer 7	7,500	9.512	8.54	Yes
Drum Dryer 8	7,500	9.512	8.54	Yes
Drum Dryer 9	7,500	9.512	8.54	Yes
Drum Dryer 10	7,500	9.512	8.54	Yes
Drum Dryer 11	7,500	9.512	8.54	Yes
Drum Dryer 12	7,500	9.512	8.54	Yes
Fluidized Bed Dryer	10,000	11.000	3.50	Yes
National Dryer	7,500	9.512	1.71	Yes
Flake Packaging				
Bulk Line	12,000	11.513	0.120	Yes
Flake Packaging				
Line	8,000	9.887	0.35	Yes
Flake Packaging				
Torit Line	8,000	9.887	0.35	Yes
Flake Packaging				
Drum Negative Air				
Baghouse	18,000	12.741	0.79	Yes

E = 0.045*(PW)^{0.60} E= Emission Limit < 9,250 lb/hr PW E = 1.10*(PW)^{0.25} E= Emission Limit ≥ 9,250 lb/hr PW

^{*}A ratio of 5:1 raw/final product was used for the dryers.

TANKS 4.0.9d Emissions Report - Summary Format Tank Indentification and Physical Characteristics

Identification

User Identification: Larsen Tank 1

Blaine Larsen Farms Dehydration Division Company: Type of Tank: Description:

Horizontal Tank 30,000 Gallon Fuel Tank

Tank Dimensions

Shell Length (ft): Diameter (ft): 20 Volume (gallons): Turnovers: 211.05 Net Throughput (gallyr): is Tank Heated (y/n): 6,293,000.00

is Tank Underground (y/n): N

Paint Characteristics

Shell Color/Shade: Gray/Medium Shell Condition Good

Breather Vent Settings

Vacuum Settings (psig): Pressure Settings (psig)

Meterological Data used in Emissions Calculations: Pocatello, Idaho (Avg Almospheric Pressure = 12.53 psia)

Emissions Report - Summary Format Liquid Contents of Storage Tank

Larsen Tank 1 - Horizontal Tank Pocatello, idaho

The state of the s	***************************************	Daily Liqu	id Sort. Ten (deg F)	operature	1	Vapor	Pressure	(psia)				
Mixtura/Componers	Month	Avg	Min.	Max.	Liquid Bulk Temp (deg F)	Avg	Min.	Max.	Vapor Mol. Wr	Liquid Mass Fract	 	Basis for Vapor Pressure Calculations
Residual of na. 6	All	55 44	44.27	66.62	49 43	- 8	D	16-04	190		387	Option 1: VP50 = .00003 VP60 = .00004

TANKS 4.0.9d Emissions Report - Summary Format Individual Tank Emission Totals

Emissions Report for: Annual

Larsen Tank 1 - Horizontal Tank Pocatello, Idaho

	**************************************	Losses(lbs)	
Components	Working Loss	Breathing Loss	Total Emissions
Residual oil no. 6	0.31	0:49	0.81

Emission Inventory

				*****		*						
				LJ.	Emission inventory	mventor	>					
Source						Pollutant	art					
	٥	Z.)S	SO ₂			•	
	(w/o scrubber cont.	(w/o scrubber control for Boiler No. 1)	∑ BM	W-10	VOC	ပ္က	(w/ scrubber contr	(w/ scrubber control for Boiler No. 1)	- [×ON	S	- 1
	lb/hr	tonfyr	lb/hr	ton/yr	lb/hr	ton/yr	Ib/hr	ton/yr	lb/hr	ton/yr	ID/Jul	ton/yr
Boiler No. 1	21.66	94.85	21.66	94.85	1.33	5.84	28.60	125.27	48.93	214.30	5.21	22.80
Boiler No. 2	0.05	0.21	0.05	0.21	0.04	0.15	0.004	0.02	0.64	2.79	0.54	2.35
Cyclone	0.13	75.0	0.07	0.29								
Drum Dryer 1	1,95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 2	1.95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 3	1.95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 4	1.95	8.54	1.95	8.54			0.04	0.05				
Drum Dryer 5	1,95	8.54	1.95	8,54			0.01	90.0				
Drum Dryer 6	1,95	8.54	1,95	8.54			0,01	0.05				
Drum Dryer 7	1.95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 8	1.95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 9	1.95	8,54	1.95	8.54			0.01	0.05				
Drum Dryer 10	1.95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 11	1.95	8.54	1.95	8.54			0.01	0.05				
Drum Dryer 12	1.95	8.54	1.95	8.54			0.01	0.05				
National Dryer					en de la companya de				No.			nangrangan pa
Process Emissions	1.71	7.49	1.71	7.49			0.081	0.35				3
Fluidized Bed Dryer	3,53	15.48	3,53	15.48	0.02	0.11	0.00	0.38	0.67	2.94	0.38	1,66
Flake Packaging Rulk I ine	0.120	0.53	0.120	0.53			go. And construction of the construction of th					in and the second s
Flake Packaging Line	0.080	0,35	0.080	0.35								
Flake Packaging	C C	L C	Ç	000			dycecomouspass	***************************************				
Field Cale	0.00	25.2	0000	200								
Drim Negative Air		**************************************					P					-
Bachouse	0.180	0.79	0.180	0.79			na revoya o na					
National Dryer A1	0.03	0.12	0.03	0.12	0.02	60.0	90.0	0.26	0.55	2.39	0,30	1.32
National Dryer A2	0.03	0.12	0.03	0.12	0.02	0.09	90:0	0.26	0.55	2.39	0.30	1.32
National Dryer B	0.03	0.12	0.03	0.12	0.02	60.0	90.0	0.26	0.55	2.39	0.30	1.32
National Dryer C	0.03	0.12	0.03	0.12	0.02	0.09	90:0	0.26	0,55	2,39	0.30	1.32
Propane Heaters	0.03	0.12	0.03	0.12	0.02	0.09	90.0	0.26	0.68	3.00	0.30	1.32
Tanks						0.0012						
					<u> </u>	CONTRACTOR AND ADDRESS OF THE ADDRES				-	40 4	
			70	64 666	- C- ×	0	C C C C	- C	4.00	23.79 6.75	7.77	2.5. A.3.

TOXIC AIR POLLUTANTS (TAPS)

TOXIC AIR POLLUTANT CALCULATIONS

TABLE 1. BOILER #1 - NON-CARCINOGENS

		FUEL OIL		
Pollutant	Emission Factor	Emissions	Emissions	Emissions
	(lb/1,000 gal)	(lb/hr)	(tons/yr)	(grams/sec)
Antimony	5.25E-03	5.47E-03	2.39E-02	6.89E-04
Barium	2.57E-03	2.68E-03	1.17E-02	3.37E-04
Chromium	8.45E-04	8.80E-04	3.85E-03	1.11E-04
Cobalt	6.02E-03	6.27E-03	2.74E-02	7.90E-04
Copper	1.76E-03	1.83E-03	8.02E-03	2.31E-04
Ethylbenzene	6.36E-05	6.62E-05	2.90E-04	8.34E-06
Fluoride	3.73E-02	3.88E-02	1.70E-01	4.89E-03
Hexane	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Manganese	3.00E-03	3.12E-03	1.37E-02	3.93E-04
Mercury	3*	2.88.E-04	1.26.E-03	3.63.E-05
Moybdenum	7.87E-04	8.19E-04	3.59E-03	1.03E-04
Naphthalene	1.13E-03	1.18E-03	5.15E-03	1.48E-04
Pentane	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Phosphorous	9.46E-03	9.85E-03	4.31E-02	1.24E-03
Selenium	15*	1.44E-03	6.31E-03	1.81E-04
1,1,1-Trichloroethane	2.4E-04	2.46E-04	1.08E-03	3.10E-05
Toluene	6.20E-03	6.45E-03	2.83E-02	8.13E-04
o-Xylene	1.09E-04	1.13E-04	4.97E-04	1.43E-05
Vanadium	3.18E-02	3.31E-02	1.45E-01	4.17E-03
Zinc	2.91E-02	3.03E-02	1.33E-01	3.82E-03

TABLE 2. BOILER #1 - CARCINOGENS FUEL OIL

	B: New Book Rose 3	Staff II Book			
Pollutant	Emission Factor	Emissions	Emissions	Emissions	
	(lb/1,000 gal)	(lb/hr)	(tons/yr)	(grams/sec)	
Arsenic	1.32E-03	1.37E-03	6.02E-03	1.73E-04	
Benzene	2.14E-04	2.23E-04	9.76E-04	2.81E-05	
Beryllium	3*	2.88.E-04	1E-03	4.E-05	
Cadmium	3*	2.88.E-04	1.26E-03	4.E-05	
Chromium VI	2.48E-04	2.58E-04	1.13E-03	3.25E-05	
Formaldehyde	3.30E-02	3.44E-02	2E-01	4.33E-03	
Nickel	1.67E-06	1.74E-06	7.61E-06	2.19E-07	
Benzo(a)pyrene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Benz(a)anthracene	4.01E-06	4.17E-06	2E-05	5.26E-07	
Benzo(b,k)fluoranthene	1.48E-06	1.54E-06	6.75E-06	1.94E-07	
Chrysene	2.38E-06	2.48E-06	1.09E-05	3.12E-07	
Dibenzo(a,h)anthracene	1.67E-06	1.74E-06	8E-06	2.19E-07	
Indeno(1,2,3-cd)pyrene	2.14E-06	2.23E-06	9.76E-06	2.81E-07	
Total PAHs	1.17E-05	1.22E-05	5.33E-05	1.53E-06	

Notes: * Emission factor units in pounds per 1,000,000 MMBTU.

Emission estimates represent maximum emissions based on burning #2, #4, #5, or #6 fuel oil, and based on AP-42 Tables 1.3-9, 1.3-10, and 1.3-11 (except nickel).

Nickel estimates based on maximum fuel oil nickel concentration from fuel supplier.

Emissions based on boiler operating with maximum fuel usage of 641 gal/hour.

Emissions based on 8,760 hours/year of operation.

TOXIC AIR POLLUTANT CALCULATIONS TABLE 3. BOILER #2 - NON-CARCINOGENS NATURAL GAS

	143.5 1 63.1 63.47	m with the contract of the con		
Pollutant	Emission Factor	Emissions	Emissions	Emissions
	(lb/1,000,000 scf)	(lb/hr)	(tons/yr)	(grams/sec)
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Barium	4.4E-03	2.8E-05	1.2E-04	3.5E-06
Chromium	1.4E-03	8.9E-06	3.9E-05	1.1E-06
Cobalt	8.4E-05	5.4E-07	2.3E-06	6.8E-08
Copper	8.5E-04	5.4E-06	2.4E-05	6.8E-07
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoride	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Hexane	1.8E+00	1.1E-02	5.0E-02	1.4E-03
Manganese	3.8E-04	2.4E-06	1.1E-05	3.1E-07
Mercury	2.6E-04	1.7E-06	7.3E-06	2.1E-07
Molybdenum	1.1E-03	7.0E-06	3.1E-05	8.8E-07
Naphthalene	6.1E-04	3.9E-06	1.7E-05	4.9E-07
Pentane	2.6E+00	1.7E-02	7.3E-02	2.1E-03
Phosphorous	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Selenium	2.4E-05	1.5E-07	6.7E-07	1.9E-08
Toluene	3.4E-03	2.2E-05	9.5E-05	2.7E-06
o-Xylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Vanadium	2.3E-03	1.5E-05	6.4E-05	1.8E-06
Zinc	2.9E-02	1.9E-04	8.1E-04	2.3E-05

TABLE 4. BOILER #2 - CARCINOGENS NATURAL GAS

	taker and and are are	we was a great		
Pollutant	Emission Factor	Emissions	Emissions	Emissions
	(lb/1,000,000 scf)	(lb/hr)	(tons/yr)	(grams/sec)
Arsenic	2.0E-04	1.3E-06	5.6E-06	1.6E-07
Benzene	2.1E-03	1.3E-05	5.9E-05	1.7E-06
Beryllium	1.2E-05	7.7E-08	3.4E-07	9.6E-09
Cadmium	1.1E-03	7.0E-06	3.1E-05	8.8E-07
Chromium VI	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Formaldehyde	7.5E-02	4.8E-04	2.1E-03	6.0E-05
Nickel	2.1E-03	1.3E-05	5.9E-05	1.7E-06
Benzo(a)pyrene	1.2E-06	7.7E-09	3.4E-08	9.6E-10
Benz(a)anthracene	1.8E-06	1.1E-08	5.0E-08	1.4E-09
Benzo(b)fluoranthene	1.8E-06	1.1E-08	5.0E-08	1.4E-09
Benzo(k)fluoranthene	1.8E-06	1.1E-08	5.0E-08	1.4E-09
Chrysene	1.8E-06	1.1E-08	5.0E-08	1.4E-09
Dibenzo(a,h)anthracene	1.2E-06	7.7E-09	3.4E-08	9.6E-10
Indeno(1,2,3-cd)pyrene	1.8E-06	1.1E-08	5.0E-08	1.4E-09
Total PAHs	1.1E-05	7.3E-08	3.2E-07	9.2E-09

Notes: Emissions based on boiler operating at maximum rate of 6.7 MMBTU/hr.

Assumed 1,050 BTU/scf heat content of natural gas. Emissions based on 8,760 hours/year of operation.

Source: AP-42 Tables 1.4-3 and 1.4-4, 7/98.

Note: For small natural gas boiler

TOXIC AIR POLLUTANTS CALCULATIONS

TABLE 1. FLUIDIZED BED DRYER - NON-CARCINOGENS NATURAL GAS

		cuine and a state		
Pollutant	Emission Factor	Emissions	Emissions	Emissions
	(lb/1,000,000 scf)	(lb/hr)	(tons/yr)	(grams/sec)
Antimony	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Barium	4.4E-03	2.0E-05	8.7E-05	2.5E-06
Chromium	1.4E-03	6.3E-06	2.8E-05	7.9E-07
Cobalt	8.4E-05	3.8E-07	1.7E-06	4.8E-08
Copper	8.5E-04	3.8E-06	1.7E-05	4.8E-07
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Fluoride	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Hexane	1.8E+00	8.1E-03	3.5E-02	1.0E-03
Manganese	3.8E-04	1.7E-06	7.5E-06	2.2E-07
Mercury	2.6E-04	1.2E-06	5.1E-06	1.5E-07
Molybdenum	1.1E-03	5.0E-06	2.2E-05	6.2E-07
Naphthalene	6.1E-04	2.7E-06	1.2E-05	3.5E-07
Pentane	2.6E+00	1.2E-02	5.1E-02	1.5E-03
Phosphorous	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Selenium	2.4E-05	1.1E-07	4.7E-07	1.4E-08
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Toluene	3.4E-03	1.5E-05	6.7E-05	1.9E-06
o-Xylene	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Vanadium	2.3E-03	1.0E-05	4.5E-05	1.3E-06
Zinc	2.9E-02	1.3E-04	5.7E-04	1.6E-05

TABLE 2. FLUIDIZED BED DRYER - CARCINOGENS NATURAL GAS

	2 W. F. F. 400 4 C. F.	a position		
Pollutant	Emission Factor	Emissions	Emissions	Emissions
	(lb/1,000,000 scf)	(lb/hr)	(tons/yr)	(grams/sec)
Arsenic	2.00E-04	9.0E-07	3.9E-06	1.1E-07
Benzene	2.1E-03	9.5E-06	4.1E-05	1.2E-06
Beryllium	1.20E-05	5.4E-08	2.4E-07	6.8E-09
Cadmium	1.10E-03	5.0E-06	2.2E-05	6.2E-07
Chromium VI	0.00E+00	0.0E+00	0.0E+00	0.0E+00
Formaldehyde	7.5E-02	3.4E-04	1.5E-03	4.3E-05
Nickel	2.1E-03	9.5E-06	4.1E-05	1.2E-06
Benzo(a)pyrene	1.2E-06	5.4E-09	2.4E-08	6.8E-10
Benz(a)anthracene	1.8E-06	8.1E-09	3.5E-08	1.0E-09
Benzo(b)fluoranthene	1.8E-06	8.1E-09	3.5E-08	1.0E-09
Benzo(k)fluoranthene	1.8E-06	8.1E-09	3.5E-08	1.0E-09
Chrysene	1.8E-06	8.1E-09	3.5E-08	1.0E-09
Dibenzo(a,h)anthracene	1.2E-06	5.4E-09	2.4E-08	6.8E-10
Indeno(1,2,3-cd)pyrene	1.8E-06	8.1E-09	3.5E-08	1.0E-09
Total PAHs	1.1E-05	5.1E-08	2.2E-07	6.5E-09

Source: AP-42 Tables 1.4-3 and 1.4-4, 7/98.

Notes: Emissions based on operating at maximum rate of 4,500 cu. ft./hr.

Emissions based on 8,760 hours/year of operation.

TOXIC AIR POLLUTANT CALCULATIONS

TABLE 1. DRYERS A, B, & C - NON-CARCINOGENS NATURAL GAS

			AN.	NATURAL GAS										
Pollutant	Emission Factor	Emissions		Emissions	Emissions	Emissions		Emissions	Emissions	Dryer A1	Dryer A2	Dryer B	Dryer C	
	(lb/1,000,000 sct)	Dryer A1	Dryer A2	Dryer B	Dryer C	Dryer A1	Dryer A2	Dryer B	Dryer C	Emissions	Emissions	Emissions	Emissions	
		(lb/hr)	(Ib/hr)	(Ib/hr)	(Ib/hr)	tpy	tpy	tpy	tpy .	(grams/sec)	(grams/sec)	(grams/sec)	(grams/sec)	
Antimony	0.0E+00	0.0E+00	0,0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0,0E+00	0.0E+00	0,0E+00	
Barium	4.4E-03	1.6E-05	1.6E-05	1.6E-05	1.65-05	.6:9E-05	6.9E-05	6.9E-05	6.9E-05	2.0E-06	2.0E-06	2.0E-06	2.0E-06	
Chromium	1.4E-03	5.0E-06	5,0E-06	5,0E-06	5.0E-06	2.2E-05	2.2E-05	2.2E-05	2.2E-05	6.4E-07	6.4E-07	.6.4E-07	6.4E-07	
Cobalt	8.4E-05	3.0E-07	3.0E-07	3.0E-07	3,0E-07	1.3E-06	1.3E-06	1.3E-06	1.3E-06	3.8E-08	3.8E-08	3.8E-08	3.8E-08	
Copper	8,5E-04	3.1E-06	3.1E-06	3.1E-06	3,1E-06	1.3E-05	1.3E-05	1.3E-05	1.3E-05	3.9E-07	3.9E-07	3.9E-07	3.9E-07	
Ethylbenzene	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Fluoride	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0,0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Hexane	1.8E+00	6.5E-03	6.5E-03	6.5E-03	6.5E-03	2.8E-02	2.8E-02	2.8E-02	2.8E-02	8.2E-04	8.2E-04	8.2E-04	8.2E-04	
Manganese	3.8E-04	1.4E-06	1.4E-06	1.4E-06	1.4E-06	6,0E-06	6.0E-06	6.0E-06	6.0E-06	1.7E-07	1.7E-07	1.7E-07	1.7E-07	
Mercury	2.6E-04	9.4E-07	9.4E-07	9.4E-07	9.4E-07	4.1E-06	4.1E-06	4.1E-06	4.1E-06	1.2E-07	1.2E-07	1.2E-07	1.2E-07	
Molybdenum	1.1E-03	4.0E-06	4.0E-06	4.0E-06	4.0E-06	1,7E-05	1.7E-05	1.7E-05	1,7E-05	5.0E-07	5.0E-07	5.0E-07	5.0E-07	
Naphthalene	6.1E-04	2.2E-06	2.2E-06	2.2E-06	2.2E-06	9.6E-06	9.6E-06	9.6E-06	9.6E-06	2.8E-07	2.8E-07	2.8E-07	2.8E-07	
Pentane	2,6E+00	9.4E-03	9.4E-03	9.4E-03	9.4E-03	4.1E-02	4.1E-02	4.1E-02	4.1E-02	1.2E-03	1.2E-03	1.2E-03	1.2E-03	
Phosphorous	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Selenium	2.4E-05	8.6E-08	8.6E-08	8.6E-08	8.6E-08	3.8E-07	3.8E-07	3.8E-07	3.8E-07	1.1E-08	1.1E-08	1,1E-08	1.1E-08	
1,1,1-Trichloroethane	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Toluene	3.4E-03	1.2E-05	1.2E-05	1.2E-05	1.2E-05	5.4E-05	5.4E-05	5.4E-05	5.4E-05	1.5E-06	1.5E-06	1.5E-06	1.5E-06	
o-Xylene	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	
Vanadium	2.3E-03	8.3E-06	3.3E-06	8.3E-06	8.3E-06	3.6E-05	3.6E-05	3.6E-05	3.6E-05	1.0E-06	1.0E-06	1.0E-06	1.0E-06	
Zinc	2.9E-02	1.0E-04	1.0E-04	1.0E-04	1.0E-04	4.6E-04	4.6E-04	4.6E-04	4.6E-04	1.3E-05	1.3E-05	1.3E-05	1.3E-05	

TABLE 2. DRYERS A, B, & C - CARCINOGENS

	Ž	NATURAL GAS		i î					•				,
Pollutant	Emission Factor	Emissions	Emissions	Emissions	Emissions	Emissions		Emissions	Emissions	Dryer A1	Dryer A2	Dryer B	Dryer C
	(15/1,000,000 scf)	Dryer A1	Dryer A2	Dryer B	Dryer C	Dryer A1	Dryer A2	Dryer B	Dryer C	Emissions	Emissions	Emíssions	Emissions
		(Ib/hr)	(lb/hr)	(Ib/hr)	(lb/hr)	tpy	tpy	(b)	tpy	(grams/sec)	(grams/sec)	(grams/sec)	(grams/sec)
Arsenic	2.0E-04	7.2E-07	7.2E-07	7.2E-07	7.2E-07	3.2E-06	3.2E-06	3.2E-06	3.2E-06	9.1E-08	9.1E-08	9.1E-08	9.1E-08
Benzene	2.1E-03	7.6E-06	7.6E-06	7.6E-06	7.6E-06	3.3E-05	3.3E-05	3.3E-05	3.3E-05	9.5E-07	9.5E-07	9.5E-07	9.5E-07
Benyllium	1.2E-05	4.3E-08	4.3E-08	4.3E-08	4.3E-08	1.9E-07	1.9E-07	1.9E-07	1.9E-07	5.4E-09	5.4E-09	5.4E-09	5.4E-09
Cadmium	1.1E-03	4.0E-06	4.0E-06	4.0E-06	4.0E-06	1.7E-05	1.7E-05	1.7E-05	1.7E-05	5.0E-07	5.0E-07	5.0E-07	5.0E-07
Ohromium VI	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Formaldehyde	7.5E-02	2.7E-04	2.7E-04	2.7E-04	2.7E-04	1.2E-03	1.2E-03	1.2E-03	1.2E-03	3.4E-05	3.4E-05	3.4E-05	3.4E-05
Nickel	2.1E-03	7.6E-06	7.6E-06	7.6E-06	7.6E-06	3.3E-05	3.3E-05	3.3E-05	3.3E-05	9.5E-07	9.5E-07	9.5E-07	9.5E-07
		4.3E-09	4.3E-09	4.3E-09	4.3E-09	1.9E-08	1.9E-08	1.9E-08	1.9E-08	5.4E-10	5,4E-10	5.45-10	5.45-10
Benz(a)anthracene	1.8E-06	6.5E-09	6.5E-09	6.5E-09	6.5E-09	2.8E-08	2.8E-08	2.8E-08	2.8E-08	8.2E-10	8.2E-10	8.2E-10	8.2E-10
Benzo(b)fluoranthene	1.8E-06	6.5E-09	6.5E-09	6.5E-09	6.5E-09	2.8E-08	2.8E-08	2.8E-08	2.8E-08	8.2E-10	8.2E-10	8.2E-10	8.2E-10
Benzo(k)fluoranthene	1.8E-06	6,5E-09	6.5E-09	6.5E-09	6.5E-09	2.8E-08	2.8E-08	2.8E-08	2.8E-08	8.2E-10	8.2E-10	8.2E-10	8.2E-10
Chrysene	1.8E-06	6.5E-09	6.5E-09	6.5E-09	6.5E-09	2.8E-08	2.8E-08	2.8E-08	2.8E-08	8.2E-10	8.ZE-10	8.2E-10	8.2E-10
Dibenzo(a,h)anthracene	1.2E-06	4.3E-09	4.3E-09	4.3E-09	4.3E-09	1.9E-08	1.9E-08	1,9E-08	1.9E-08	5.4E-10	5.4E-10	5.4E-10	5,4E-10
Indeno(1,2,3-cd)pyrene 1.8E-06	nesencus	6.5E-09	6.5E-09	6.5E-09	6.5E-09	2.8E-08	2.8E-08	2.8E-08	2.8E-08	8.2E-10	8.2E-10	8.2E-10	8.2E-10
Total PAHs	Secretarios	4.1E-08		4.1E-08	4.1E-08	1.8E-07	1.8E-07	1.8E-07	1.8E-07	5.2E-09	5.2E-09	5.2E-09	5,2E-09

Notes: Emissions based on each dryer operating at 3,600 cu. ft./hr. Emissions based on 8,760 hours/year of operation for each dryer.

Source: AP-42 Tables 1.4-3 and 1.4-4, 7/98.

TOXIC AIR POLLUTANT CALCULATIONS

TABLE 1. PROPANE HEATERS -- NON-CARCINOGENS NATURAL GAS

185.11 22.12	i day a gain			
Emission Factor	Emissions	Emissions		Emissions
	Propane Heaters 1,	Propane Heaters	1,	Propane Heaters 1,
(lb/1,000,000 scf)	2, & 3	2, & 3		2, & 3
	(lb/hr)	(tpy)		(grams/sec)
0.0E+00	0.0E+00	0.0E+00		0.0E+00
4.4E-03	1.6E-05	6.9E-05		2.0E-06
1.4E-03	5.0E-06	2.2E-05		6.4E-07
8.4E-05	3.0E-07	1.3E-06		3.8E-08
8.5E-04	3.1E-06	1.3E-05		3.9E-07
0.0E+00	0.0E+00	0.0E+00		0.0E+00
0.0E+00	0.0E+00	0.0E+00		0.0E+00
1.8E+00	6.5E-03	2.8E-02		8.2E-04
3.8E-04	1.4E-06	6.0E-06		1.7E-07
2.6E-04	9.4E-07	4.1E-06		1.2E-07
1.1E-03	4.0E-06	1.7E-05		5.0E-07
6.1E-04	2.2E-06	9.6E-06		2.8E-07
2.6E+00	9.4E-03	4.1E-02		1.2E-03
0.0E+00	0.0E+00	0.0E+00		0.0E+00
2.4E-05	8.6E-08	3.8E-07		1.1E-08
0.0E+00	0.0E+00	0.0E+00		0.0E+00
3.4E-03	1.2E-05	5.4E-05		1.5E-06
0.0E+00	0.0E+00	0.0E+00		0.0E+00
2.3E-03	8.3E-06	3.6E-05		1.0E-06
2.9E-02	1.0E-04	4.6E-04		1.3E-05
	(Ib/1,000,000 scf) 0.0E+00 4.4E-03 1.4E-03 8.4E-05 8.5E-04 0.0E+00 0.0E+00 1.8E+00 3.8E-04 2.6E-04 1.1E-03 6.1E-04 2.6E+00 0.0E+00 2.4E-05 0.0E+00 3.4E-03 0.0E+00 2.3E-03	Emission Factor Emissions Propane Heaters 1, (lb/hr) 0.0E+00 0.0E+00 4.4E-03 1.6E-05 1.4E-03 5.0E-06 8.4E-05 3.0E-07 8.5E-04 3.1E-06 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.8E+00 6.5E-03 3.8E-04 1.4E-06 2.6E-04 9.4E-07 1.1E-03 4.0E-06 6.1E-04 2.2E-06 2.6E+00 9.4E-03 0.0E+00 0.0E+00 2.4E-05 8.6E-08 0.0E+00 0.0E+00 3.4E-03 1.2E-05 0.0E+00 2.3E-05	Emission Factor Emissions Propane Heaters 1, Propane Heaters 2, & 3 Emissions Propane Heaters 3, Propane Heaters 2, & 3 (Ib/1,000,000 scf) 2, & 3 2, & 3 (Ib/hr) (tpy) 0.0E+00 0.0E+00 0.0E+00 4.4E-03 1.6E-05 6.9E-05 1.4E-03 5.0E-06 2.2E-05 8.4E-05 3.0E-07 1.3E-06 8.5E-04 3.1E-06 1.3E-05 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.8E+00 6.5E-03 2.8E-02 3.8E-04 1.4E-06 6.0E-06 2.6E-04 9.4E-07 4.1E-06 1.1E-03 4.0E-06 1.7E-05 6.1E-04 2.2E-06 9.6E-06 2.6E+00 9.4E-03 4.1E-02 0.0E+00 0.0E+00 0.0E+00 2.4E-05 8.6E-08 3.8E-07 0.0E+00 0.0E+00 0.0E+00 3.4E-03 1.2E-05 5.4E-05 0.0E+00 0.0E+00 0.0E+00	Emission Factor Emissions Emissions (Ib/1,000,000 scf) 2, & 3 2, & 3 (Ib/hr) (tpy) 0.0E+00 0.0E+00 0.0E+00 4.4E-03 1.6E-05 6.9E-05 1.4E-03 5.0E-06 2.2E-05 8.4E-05 3.0E-07 1.3E-06 8.5E-04 3.1E-06 1.3E-05 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.8E+00 6.5E-03 2.8E-02 3.8E-04 1.4E-06 6.0E-06 2.6E-04 9.4E-07 4.1E-06 1.1E-03 4.0E-06 1.7E-05 6.1E-04 2.2E-06 9.6E-06 2.6E+00 9.4E-03 4.1E-02 0.0E+00 0.0E+00 0.0E+00 2.4E-05 8.6E-08 3.8E-07 0.0E+00 0.0E+00 0.0E+00 3.4E-03 1.2E-05 5.4E-05 0.0E+00 0.0E+00 0.0E+00 2.3E-03 8.3E-06 3.6E-

TABLE 2. PROPANE HEATERS - CARCINOGENS NATURAL GAS

Pollutant	Emission Factor	Emissions	Emissions	Emissions
		Propane Heaters 1,	Propane Heaters	1, Propane Heaters 1,
	(lb/1,000,000 scf)	2, & 3	2, & 3	2, & 3
		(lb/hr)	(tpy)	(grams/sec)
Arsenic	2.0E-04	7.2E-07	3.2E-06	9.1E-08
Benzene	2.1E-03	7.6E-06	3.3E-05	9.5E-07
Beryllium	1.2E-05	4.3E-08	1.9E-07	5.4E-09
Cadmium	1.1E-03	4.0E-06	1.7E-05	5.0E-07
Chromium VI	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Formaldehyde	7.5E-02	2.7E-04	1.2E-03	3.4E-05
Nickel	2.1E-03	7.6E-06	3.3E-05	9.5E-07
Benzo(a)pyrene	1.2E-06	4.3E-09	1.9E-08	5.4E-10
Benz(a)anthracene	1.8E-06	6.5E-09	2.8E-08	8.2E-10
Benzo(b)fluoranthene	1.8E-06	6.5E-09	2.8E-08	8.2E-10
Benzo(k)fluoranthene	1.8E-06	6.5E-09	2.8E-08	8.2E-10
Chrysene	1.8E-06	6.5E-09	2.8E-08	8.2E-10
Dibenzo(a,h)anthracene	1.2E-06	4.3E-09	1.9E-08	5.4E-10
Indeno(1,2,3-cd)pyrene	1.8E-06	6.5E-09	2.8E-08	8.2E-10
Total PAHs	1.1E-05	4.1E-08	1.8E-07	5.2E-09

Notes: Emissions based on each propane heaters operating at 1,200 cu. ft. hr.

Emissions based on 8,760 hours/year of operation for each dryer.

Source: AP-42 Tables 1.4-3 and 1.4-4, 7/98.

TOXIC AIR POLLUTANT EMISSION INVENTORY

TABLE 1. NON-CARCINOGENS

		Screening		
Pollutant	Max. Hourly Emissions	Level	Modeling?	Emissions
	(lb/hr)	(lb/hr)	(Y/N)	(tons/yr)
Antimony	5.47E-03	3.3E-02	N	2.39E-02
Barium	2.80E-03	3.3E-02	Ν	1.22E-02
Chromium	9.20E-04	3.3E-02	Ν	3.99E-03
Cobalt	6.27E-03	3.3E-03	Υ	2.75E-02
Copper	1.86E-03	6.7E-02	Ν	8.11E-03
Ethylbenzene	6.62E-05	2.9E+01	Ν	2.90E-04
Fluoride	3.88E-02	1.67E-01	N	1.70E-01
Hexane	5.20E-02	1.2E+01	Ν	2.28E-01
Manganese	3.13E-03	3.33E-01	Ν	1.37E-02
Mercury	2.96E-04	3.E-03	Ν	1.29E-03
Molybdenum	8.51E-04	6.67E-01	Ν	3.70E-03
Naphthalene	1.19E-03	3.33E+00	Ν	5.21E-03
Pentane	7.51E-02	1.18E+02	Ν	3.29E-01
Phosphorous	9.85E-03	7.E-03	Υ	4.31E-02
Selenium	1.44E-03	1.3E-02	N	6.31E-03
1,1,1-Trichloroethane	2.67E-04	1.3E+02	N	1.08E-03
Toluene	6.53E-03	2.5E+01	Ν	2.86E-02
o-Xylene	1.28E-04	2.9E+01	N	4.97E-04
Vanadium	3.33E-02	3.0E-03	Υ	1.45E-01
Zinc	3.09E-02	6.67E-01	N	1.36E-01

TABLE 2. CARCINOGENS

		Screening		
Pollutant	Max. Hourly Emissions	Level	Modeling?	Emissions
	(lb/hr)	(lb/hr)	(Y/N)	(tons/yr)
Arsenic	1.38E-03	1.5E-06	Υ	6.04E-03
Benzene	2.83E-04	8.0E-04	Ν	1.18E-03
Beryllium	2.88E-04	2.8E-05	Υ	1.26E-03
Cadmium	3.20E-04	3.7E-06	Y	1.37E-03
Chromium VI	2.58E-04	5.6E-07	Y	1.13E-03
Formaldehyde	3.65E-02	5.1E-04	Υ	1.58E-01
Nickel	6.24E-05	2.7E-05	Y	2.66E-04
Benzo(a)pyrene	3.47E-08	2.0E-06	N	1.52E-07
Benz(a)anthracene	4.23E-06	NA	NA	1.85E-05
Benzo(b,k)fluoranthene	1.59E-06	NA	NA	6.93E-06
Chrysene	2.53E-06	NA	NA	1.10E-05
Dibenzo(a,h)anthracene	1.79E-06	NA	NA	7.79E-06
Indeno(1,2,3-cd)pyrene	2.26E-06	NA	NA	9.88E-06
Total PAHs	1.22E-05	2.0E-06	A princip property control princips princips deferring	5.34E-05

HAPs Inventory

Pollutant	Emissions (tons/yr)
Arsenic	6.04E-03
Benzene	1.18E-03
Beryllium	1.26E-03
Cadmium	1.37E-03
Ethylbenzene	2.90E-04
Formaldehyde	1.58E-01
Chromium	1.13E-03
Lead	1.18E-04
Mercury	1.29E-03
1,1,1 - Trichlorethane (Methyl Chloroform)	1.08E-03
Naphthalene	5.21E-03
Nickel	2.66E-04
Xylene	4.97E-04
Selenium	6.31E-03
Toluene	2.86E-02
Phosphorus	4.31E-02
POM	1.98E-06
Dichlorobenzene Hexane Total	2.70E-05 4.05E-02 2.96E-01

Note: Emission Factors for lead, POM, dichlorobenzene and hexane are as follows (i.e., for those HAPs not listed above):

Lead	1.20E-07	lb/gal
	5.00E-04	lb/MMscf
POM	8.82E-05	lb/MMscf
Dichlorobenzene	1.20E-03	lb/MMscf
Hexane	1.8	lb/MMscf

6.0 AMBIENT AIR QUALITY IMPACT ANALYSIS

This section describes the estimated ambient air quality impact from the proposed modification. Air dispersion modeling has been conducted for this facility in order to demonstrate compliance with National Ambient Air Quality Standards (NAAQS) for criteria pollutants in 40 CFR 51. Toxic air pollutants were also evaluated against threshold emissions levels (ELs), and ambient concentrations for those pollutants exceeding their respective ELs were modeled and compared to the Acceptable Ambient Concentrations (AAC) or Acceptable Ambient Concentrations for Carcinogens (AACC) given in the IDEQ's *Rules for the Control of Air Pollution* (IDAPA 58.01.01) Sections 585 and 586, respectively.

Modeling was generally conducted in accordance with EPA's *Guideline on Air Quality Models* and the Idaho Department of Environmental Quality's (IDEQ) *Air Quality Modeling Guideline*. Meteorological data and ambient air boundaries were discussed with and approved by IDEQ modeling representative Kevin Schilling.

A description of the facility is given in Section 6.1. Details of the model input data, including emission unit information, meteorological data, receptor descriptions, and modeling options are given in Section 6.2. A description of the modeling analysis and results are given in Section 6.3.

6.1 Facility Description

The facility is a potato dehydration plant located approximately seven miles south of Dubois in Clark County, Idaho. The dehydration plant is located in Section 28, Township 9 North, Range 36 East, at Universal Transverse Mercator (UTM) Zone 12 coordinates of 402.4 km east, 4881.8 km north. The terrain surrounding the plant is fairly flat, gently sloping downward from north to south. Elevated terrain is primarily to the north and east of the facility.

Emission units at the facility include the following:

- Two boilers (emission units BOILER_1 and BOILER_2)
- Twelve drum dryers (emission units DRUM1 through DRUM12)
- One National Dryer (dehydrator) with four exhaust fans (emission units NAT_A1, NAT_A2, NAT_B, and NAT_C)
- One fluidized bed dryer (emission unit FBD_DYR)
- A flake packaging area (including emission units FP, FP_BULK, FP_TOR, and FP_BH)
- Three propane heaters in the receiving area (emission units REC_1, REC_2, and REC_3), and
- One cyclone (emission unit 04CYCLON)

The facility is a source of sulfur dioxide (SO₂), nitrogen oxides (NOx), volatile organic compounds (VOC), carbon monoxide (CO), and particulate matter (PM) from fuel combustion; and a source of SO₂ and PM from the drying process. Total lead emissions from the facility are well below the 0.6 tpy threshold requiring modeling in accordance with Table 1 of IDEQ's modeling guidelines.

A layout of the facility, showing the location of the point sources and buildings is given in Section 2 of this document in Figure 2-1. Figures 6-1 and 6-2 provide more details on the locations of the model sources and buildings for the north and south half of the plant, respectively.

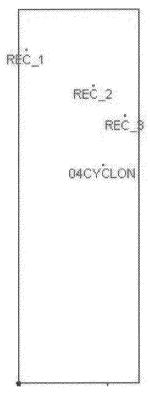


Figure 6-1 Model Source and Building Layout, North Half

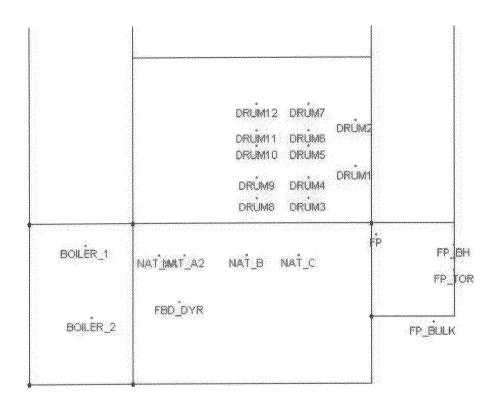


Figure 6-2 Model Source and Building Layout, South Half

Figure 2-2 in Section 2 of this permit application illustrates the ambient air boundary used for air quality modeling purposes in previous permit applications submitted for RDO. For this permit application, RDO has increased the north, east, and south ambient air boundaries approximately 1.5 miles beyond the previous boundaries in each of these directions. This action was approved by IDEQ modeling representative Kevin Schilling. RDO owns a large portion of the property surrounding the facility, and the defined ambient air boundary is well within those limits, and therefore justified.

Consistent with requirements under the national Homeland Security Act, employees are trained to notice and discourage unauthorized access. There are no residences within a mile of the property boundary used in this modeling analysis.

6.2 Model Input

The Industrial Source Complex Short-Term Version 3 Prime (ISCST3) model, version 04269, was used for this analysis. All modeling input and output files are included on the enclosed compact disc.

6.2.1 Model Options

Regulatory default modeling options were used, including stack tip downwash, final plume rise, calms processing, and buoyancy-induced dispersion. Since the area within a 3-km radius of the site is unpopulated agricultural land, rural dispersion coefficients were used. Elevated terrain was considered. Averaging times varied by pollutant and included the 1-hour, 3-hour, 8-hour, 24-hour, and annual averaging times. Modeling options are listed below in Table 6-1.

Table 6-1 Modeling Option Summary

Parameter	Setting
Regulatory Options	Regulatory Default
Dispersion	Rural, by Concentration
Terrain	Simple and Complex
Flagpole Receptors	None
Averaging Times	1-, 3-, 8-, and 24-hour; and/or annual (varies by pollutant)
Dispersion Output	Concentration (µg/m³)
PRIME Option	Used, though no receptors were in or near the downwash zone

6.2.2 Emission and Source Data

Emission units at the facility and stack parameters are listed in Table 6-2.

Table 6-2 Emission Units and Stack Parameters

Stack No.	Stack ID	Туре	Exit Direction	Height above ground	Temp.	Velocity	Diam.
			Market in the second se	(ft)	(°F)	(ft/sec)	<u>(ft)</u>
1	BOILER_1	Boiler	V	34.92	585	20.6102	6.65
2	DRUMI	Drum Dryer 1	V w/cap	45.58	125	0.0033	3.58
3	DRUM2	Drum Dryer 2	V w/cap	45.58	125	0.0033	3.58
4	DRUM3	Drum Dryer 3	V w/cap	45.58	125	0.0033	3.58
5	DRUM4	Drum Dryer 4	V w/cap	45.58	125	0.0033	3.58
6	DRUM5	Drum Dryer 5	V w/cap	45.58	125	0.0033	3.58
7	DRUM6	Drum Dryer 6	V w/cap	45.58	125	0.0033	3.58
8	DRUM7	Drum Dryer 7	V w/cap	45.58	125	0.0033	3.58
9	DRUM8	Drum Dryer 8	V w/cap	45.58	125	0.0033	3.58
10	DRUM9	Drum Dryer 9	V w/cap	45.58	125	0.0033	3.58
11	DRUM10	Drum Dryer 10	V w/cap	45.58	125	0.0033	3.58
12	DRUM11	Drum Dryer 11	V w/cap	45.58	125	0.0033	3.58
13	DRUM12	Drum Dryer 12	V w/cap	45.58	125	0.0033	3.58
14	FBD DYR	Fluidized Bed Dryer	Н	39.42	110	0.0033	0.0033
15	NAT A1	National Dryer Fan A1	Н	36.00	150	0.0033	0.0033
16	NAT A2	National Dryer Fan A2	Н	36.00	176	0.0033	0.0033
17	NAT B	National Dryer Fan B	Н	36.00	167	0.0033	0.0033
18	NAT C	National Dryer Fan C	Н	36.00	148	0.0033	0.0033
19	FP BULK	Flake Packaging Bulk Line	V	38.75	Ambient	326.4	0.33
20	FP	Flake Packaging	V	39.59	Ambient	18.6	4.00
21	FP TOR	Flake Packaging Torit	V w/cap	33.92	Ambient	0.0033	0.25
22	FP BH	Flake Packaging Drum Negative Air Baghouse	V	37.42	Ambient	108.3	1.53
23	REC 1	Propane Heater 1	V w/cap	35.38	90	0.0033	0.40
24	REC 2	Propane Heater 2	V w/cap	34.58	90	0.0033	0.40
25	REC 3	Propane Heater 3	V w/cap	35.58	90	0.0033	0.40
26	BOILER 2	Boiler #2	V	41.42	355	22.2	1.66
27	04CYCLON	Cyclone	Non-vertical	44.08	Ambient	0.0033	0.0033

All emission units emit from stacks and are therefore point sources. No area or volume sources are included in this modeling. In accordance with the IDEQ modeling guidelines, non-vertical stacks were given a default velocity of 0.001 meters per second (m/sec) and a default diameter of 0.001 meters to eliminate stack tip downwash effects. Vertical stacks with rain caps were given a default stack velocity of 0.001 m/sec. The equivalent circular diameter of rectangular stacks was determined using the equation Area = $d^2\pi/4$, where d is the inside diameter of the stack.

6.2.3 Good Engineering Practice Stack Height and Building Downwash

Stacks that are lower than Good Engineering Practice (GEP) height may be influenced by the wake of nearby buildings and structures. Building downwash parameters were determined using

RDO Processing, LLC. Facility-Wide Tier II Permit Application Page 6-6 the Building Profile Input Program (BPIP), and these parameters were incorporated into the modeling. Buildings that were included in the downwash calculations are shown in Figure 2-1.

6.2.4 Meteorological Data

IDEQ has specified the use of the Pocatello Municipal Airport surface data for 1987 – 1991 combined with the concurrent Boise/Air Terminal mixing height data for this area. The surface data station number is 24156, the mixing height station number is 24131. This data has been downloaded from EPA's Support Center for Regulatory Air Models (SCRAM) website and processed using PCRAMMET. The anemometer height was assumed to be 10 meters. As recommended by IDEQ Modeling representative Kevin Schilling, the wind directions from Pocatello were altered by rotating them to be consistent with the terrain forcing in this area near the Continental Divide north of Idaho Falls. The final rotation employed was a 40 degree counterclockwise turn. Modeling for all pollutants was performed with one five year meteorological data file.

6.2.5 Receptor Network

The receptor network used for all modeling analyses included 25-meter spacing on and 25 meters beyond the ambient air boundary, 100 meter spacing from 25 meters beyond the boundary out to 200 meters from the boundary, 250 meter grid spacing out to 1500 meters from the boundary, and 500 meter grid spacing to 6000 meters from the boundary. That receptor spacing meets requirements in the IDEQ *Air Quality Modeling Guidelines* since all model predicted maximum impacts occurred on the ambient air boundary within the 25 meter receptor spacing. Figures 6-3 and 6-4 show the model ambient air boundary and inner receptor network, and the outer receptor network, respectively.

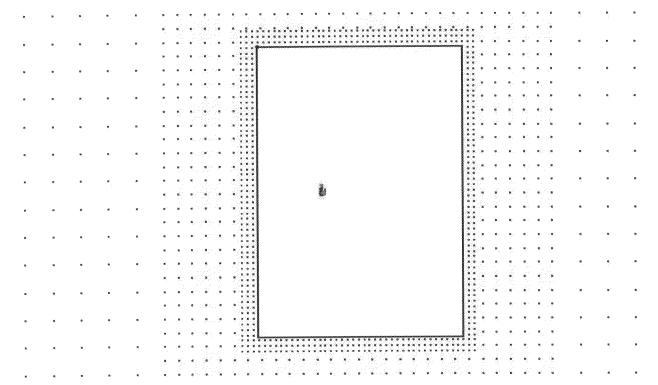


Figure 6-3 Model Ambient Air Boundary and Inner Receptor Network

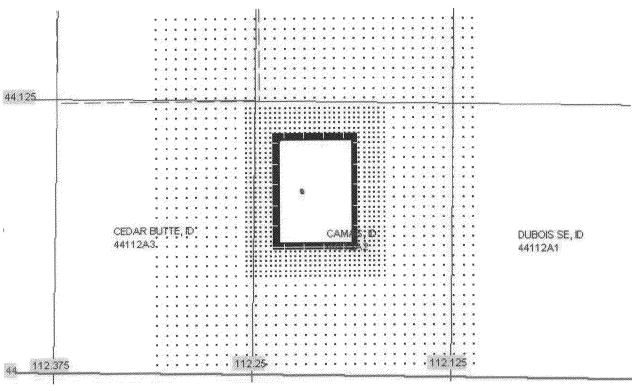


Figure 6-4 Model Outer Receptor Network

Terrain elevations for all receptors were obtained from United States Geological Survey (USGS) digitized elevation model (DEM) 30 meter resolution data.

6.3 Modeling and Results

The objective of the modeling analysis was to determine the maximum ambient concentrations of criteria pollutants for comparison with NAAQS, and the maximum impact of TAPs emitted above IDAPA 58.01.01.585 and 586 emission limits for comparison against their Acceptable Ambient Concentrations (AACs) for 585 TAPs or Acceptable Ambient Concentrations for Carcinogens (AACCs) for 586 TAPs. Ambient air background levels applicable to this area will be added to the air dispersion model output for criteria pollutants to provide comparisons of potential ambient concentrations with facility impacts to the NAAQS. The applicable NAAQS and the associated background concentrations used in this modeling, as prescribed by IDEQ, are shown in Table 6-3. Maximum model impacts reported are more conservative than required innIDEQ modling guidance: second maximum over five years for criteria pollutants and maximum impact over five years for TAPs.

Table 6-3 National Ambient Air Quality Standards and Background Concentrations

Pollutant	Averaging Period	NAAQS (μg/m³)	Background Concentration (ug/m³)
PM_{10}	Annual	50	26
	24-Hour	150	73
NO_2	Annual	100	17
SO_2	Annual	80	8
	24-Hour	365	26
	3-Hour	1300	34
CO	8-Hour	10,000	2,300 3,600
	1-Hour	40,000	3,600

Table 6-4 summarizes the modeling file names included in the analysis. Details of each run are given in the following sections.

Table 6-4 Model Files

Description	Model File	Meteorological Data Year	Results
SO ₂ modeling	RDO0506_87_SO2	1987 - 1991	All impacts below NAAQS
NO ₂ modeling	RDO0506_87_NO2	1987-1991	All impacts below NAAQS
PM-10 modeling	RDO0506 87 PM10	1987-1991	All impacts below NAAQS
CO refined modeling	RDO0506_87CO	1987-1991	All impacts below NAAQS
Cobalt modeling	RDO0506_87_Cobalt	1987-1991	All impacts below AACs
Vanadium modeling	RDO0506 87 Vanadium	1987-1991	All impacts below AACs
Arsenic modeling	RDO0506_87_Arsenic	1987-1991	All impacts below AACs
Beryllium modeling	RDO0506_87_Berylium	1987-1991	All impacts below AACCs
Cadmium modeling	RDO0506_87_Cadmium	1987-1991	All impacts below AACCs
Chromium VI modeling	RDO0506_87_ChrVI	1987-1991	All impacts below AACCs
Formaldehyde modeling	RDO0506_87_Formald	1987-1991	All impacts below AACCs
Nickel modeling	RDO0506_87_Nickel	1987-1991	All impacts below AACCs
PAH modeling	RDO0506_87_PAHs	1987-1991	All impacts below AACCs

6.3.1 SO₂ Modeling

The facility's SO₂ sources were modeled for the 3-hour, 24-hour, and annual averaging times. The results, the maximum annual average concentration predicted, and the sixth maximum over five years for all shorter averaging periods, are summarized in Table 6-5 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

Table 6-5 SO₂ Modeling Results

	Maximum Modeled Impacts (μg/m³)			
	Annual	3-hour	24-hour	
Maximum impact μg/m ³	2.09	62.8	15.0	
Background μg/m ³	8	34	26	
Maximum Ambient Concentration μg/m³	10.09	96.8	41.0	
NAAQS (μg/m³)	80	1300	365	
Max Ambient as % of NAAQS	12.6%	7.5%	11.2%	

The maximum impacts occur within the 25-meter grid, on the west boundary NNW of the plant for the short term averaging periods, and on the north boundary north of the plant for the annual average period. All impacts are below NAAQS.

6.3.2 NO₂ Modeling

The facility's NO_x sources were modeled for the annual averaging time. All emitted NO_x is assumed to be converted to NO_2 for this analysis. The results, the maximum annual average concentration predicted, are summarized in Table 6-6 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

Table 6-6 NO₂ Modeling Results

	Maximum Modeled Impacts (μg/m³)
	Annual
Maximum impact μg/m ³	3.86
Background µg/m ³	17
Maximum Ambient Concentration µg/m³	20.86
NAAQS (μg/m³)	100
Max Ambient as % of NAAQS	20.6%

The maximum impacts occur within the 25-meter grid, on the north boundary north of the plant, and all impacts are below NAAQS.

6.3.3 PM-10 Modeling

The facility's PM-10 sources were modeled for the annual and 24-hour averaging times. The results, the maximum annual average concentration predicted, and conservatively the second maximum over five years for the 24-hour averaging period are summarized in Table 6-7 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

Table 6-7 PM-10 Modeling Results

	Maximum Modeled Impacts (µg/m³)		
	Annual	24-hour	
Maximum impact μg/m³	3.98	56.0	
Background µg/m³	26	73	
Maximum Ambient Concentration µg/m³	29.98	126.0	
NAAQS (μg/m³)	50	150	
% NAAQS	60.0%	84.0%	

The maximum impacts occur within the 25-meter grid, on the west property boundary NW or N-NW of the plant. All impacts are well below the NAAQS.

6.3.4 CO Modeling

The facility's CO sources were modeled for the 1-hour and 8-hour averaging times. The results, conservatively the second maximum predicted impact over the five years modeled, are summarized in Table 6-8 below. All impacts are below significance levels; no further CO modeling is required.

Table 6-8 CO Modeling Results

	Maximum Modeled Impacts (μg/m³)			
	1-hour 8-hour			
Maximum μg/m³	67.5	16.4		
Significance Level (μg/m³)	2000	500		
% Significance	3.4%	3.3%		

6.4 Summary

The modeling results indicate that criteria pollutant emissions from this facility will not cause or contribute to any exceedances of the NAAQS. Table 6-9 summarizes the results of the modeling demonstrating NAAQS compliance.

Table 6-9 Modeling Results Summary

der er de Australie aus de Linde de Lander de	Averaging	Location	Maximum	Backgrd	Total	NAAQS	%
Pollutant	Time		μg/m³	μg/m³	μg/m³	μg/m³	NAAQS
SO_2	Annual	N bndy Nof plant	2.09	8	10.09	80	12.6%
	3-hour	W bndy NNW of plant	62.8	34	96.8	1300	7.5%
	24-hour	W bndy NNW of plant	15.0	26	41.0	365	11.2%
NO ₂	Annual	N bndy Nof plant	3.86	17	20.86	100	20.9%
PM-10	Annual	N bndy Nof plant	3.98	26	29.98	50	60.0%
	24-hour	W bndy NNW of plant	56.0	73	126.0	150	84.0%
CO	1-hour	W bndy NNW of plant	67.5	N/A (insignificant)			
	8-hour	W bndy NNW of plant	16.4	N/A (insignificant)			

7.0 DEMONSTRATION OF PRE-CONSTRUCTION COMPLIANCE WITH TOXIC STANDARDS

Table 7-1 summarizes the TAP emissions and the respective EL thresholds from IDAPA 58.01.01 585 and 586. Non-carcinogens which exceed the EL include cobalt and vanadium. Carcinogens exceeding the EL are arsenic, beryllium, cadmium, chromium VI, formaldehyde, nickel, and total PAHs.

Table 7-1 TAPs Compared to the EL

NON-CARCINOGENS				
Pollutant	Max. Hourly Emissions	Screening Level	Modeling?	Emissions
	(lb/hr)	(lb/hr)	(Y/N)	(tons/yr)
Antimony	3.37E-03	3.3E-02	N	1.47E-02
Barium	1.78E-03	3.3E-02	N	7.65E-03
Chromium	5.83E-04	3.3E-02	N	2.51E-03
Cobalt	3.86E-03	3.3E-03	Y	1.69E-02
Copper	1.15E-03	6.7E-02	N	5.03E-03
Ethylbenzene	4.08E-05	2.9E+01	N	1.79E-04
Fluoride	2.39E-02	1.67E-01	N	1.05E-01
Hexane	5.31E-02	1.2E+01	N	2.33E-01
Manganese	1.94E-03	3.33E-01	N	8.47E-03
Mercury	2.96E-04	3.E-03	N	1.29E-03
Molybdenum	5.37E-04	6.67E-01	N	2.32E-03
Naphthalene	7.43E-04	3.33E+00	N	3.23E-03
Pentane	7.67E-02	1.18E+02	N	3.36E-01
Phosphorous	6.07E-03	7.E-03	N	2.66E-02
Selenium	1.44E-03	1.3E-02	N	6.31E-03
1,1,1-Trichloroethane	1.75E-04	1.3E+02	N	6.63E-04
Toluene	4.05E-03	2.5E+01	N	1.78E-02
o-Xylene	8.60E-05	2.9E+01	N	3.06E-04
Vanadium	2.07E-02	3.0E-03	Y	8.96E-02
Zinc	1.93E-02	6.67E-01	N	8.46E-02

CARCINOGENS					
Pollutant	Max. Hourly Screening Level Emissions		Modeling?	Emissions	
	(lb/hr)	(lb/hr)	(Y/N)	(tons/yr)	
Arsenic	8,53E-04	1.5E-06	Y	3.73E-03	
Benzene	1.99E-04	8.0E-04	N	8.08E-04	
Beryllium	2.88E-04	2.8E-05	Y	1.26E-03	
Cadmium	3.20E-04	3.7E-06	Y	1.37E-03	
Chromium VI	1.59E-04	5.6E-07	Y	6.97E-04	
Formaldehyde	2.34E-02	5.1E-04	Y	1.00E-01	
Nickel	6.30E-05	2.7E-05	Y	2.71E-04	
Benzo(a)pyrene	3.54E-08	2.0E-06	Proper former sensor season entries sensor s	1.55E-07	
Benz(a)anthracene	2.63E-06	NA	NA	1.14E-05	
Benzo(b,k)fluoranthene	1.00E-06	NA	NA	4.34E-06	
Chrysene	1.58E-06	NA	NA	6.86E-06	
Dibenzo(a,h)anthracene	1.12E-06	NA	NA	4.87E-06	
Indeno(1,2,3-cd)pyrene	1.41E-06	NA	NA	6.13E-06	
Total PAHs	7.54E-06	2.0E-06	a spinist mindet sector somet trends menos manne annue pente become broad spin	3.30E-05	

RDO Processing, LLC. Facility-Wide Tier II Permit Application Page 7-2 Consistent with IDAPA 585 and 586 regulations, modeling was conducted for the 24-hour averaging time for the AAC evaluation and the annual averaging time for the AACC evaluation for all TAPs identified as emitted above the IDAPA Emission limits (ELs). The TAPs modeled included the IDAPA 585 non-carcinogens cobalt and vanadium, and the IDAPA 586 carcinogens arsenic, beryllium, cadmium, chromium VI, formaldehyde, nickel, and PAHs. The same model layout, parameters, options, meterological data, and receptor network described for the criteria pollutant modeling were used for the TAP modeling.

Table 7-2 shows the modeled ambient concentrations which are compared to the AAC or AACC; compliance is demonstrated for all TAPs. All maximum predicted annual average impacts occurred on the north boundary north of the plant, and all maximum predicted 24-hour average impacts occurred on the west boundary NW or N-NW of the plant.

Table 7-2 TAPs Compared to the AAC or AACC (for those exceeding the EL)

Non-Carcinogens						
	Modeled					
	24-hour	AAC	%			
Pollutant	μg/m3	μg/m3	AAC			
Cobalt	0.00344	2.5	<0.1%			
Vanadium	0.0183	5.0	0.4%			
	Carcinoge	ns	passon, 100 page 100			
	Modeled					
	Annual	AACC	%			
Pollutant	μg/m3	μg/m3	AACC			
Arsenic	1.00E-04	2.30E-04	43.5%			
Beryllium	<1.0E-05	4.20E-03	<0.2%			
Cadmium	3.00E-05	5.60E-04	5.4%			
Chromium VI	2.00E-05	8.30E-05	24.1%			
Formaldehyde	2.65E-03	7.70E-02	3.4%			
Nickel	1.00E-05	4.20E-03	0.2%			
Total PAHs	<1.0E-05	1.40E-02	<0.1%			

8.0 PROPOSED PERMIT CONDITIONS

RDO proposes the following permit conditions in order to demonstrate compliance with NAAQS, NSPS, and to not exceed PSD thresholds.

8.1 Throughput Limit

• The boiler No. 1 high sulfur residual fuel oil throughput shall not exceed 9,119,160 gallons per year.

8.2 Scrubber Shutdown, Maintenance, or Malfunction

• When the boiler No. 1 (main boiler) scrubber is not in operation due to shutdown, maintenance, or malfunction, RDO shall combust fuel with no greater than 0.3% sulfur by weight. When this occurs, the Subpart Db NSPS for particulate matter shall not apply since the standards do not apply during periods of startup, shutdown, or malfunction [40CFR60.43b(g)]. Similarly, the Subpart Db NSPS for sulfur dioxide shall not apply; NSPS allows for affected facilities to combust very low sulfur oil or natural gas when the sulfur dioxide control system is not being operated because of malfunction or maintenance of the sulfur dioxide control system [40CFR60.42b(i)]. If low sulfur fuel is not available, RDO shall contact DEQ for approval of temporary operation of boiler No. 1 without the scrubber in operation.

Appendix A
Air Dispersion Modeling – Model Source Data

PHOSPHRS	(14/91)	0.00985																										
VANADIUM	(lb/hr)	0.033101													8.28E-06	8.28E-06	8.28E-06	8.28E-06				2.76E-06	2.76E-06	2.76E-06	1.04E-05		5.60E-07 1.47E-05	
COBALT	(la/hr)	0.00627													3.02E-07	3.02E-07	3.02E-07	3.02E-07				1.01E-07	1.01E-07	1.01E-07	3.78E-07		5.60E-07	
NO2	(lb/hr)	48.9308													5.50E-01	5.50E-01	0.55001	0.55001				2.30E-01	2.30E-01	0.23	6.70E-01		0.004 0.54001 0.64001	
8	(lb/hr)	5 5.21009	quens	****	-	quan	- Evina	denne	Access to	· Quinn	que	4	quin	Emois	8 0.30001	8 0.30001	8 0.30001	8 0.30001				2 0.1	2 0.1	2 0.1	9 0.38001		4 0.54001	
203	(IH/dl)	28,6005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.01	0.01	0.01	0.01	0.08	0.08	0.08	0.08				0.02	0.02	0.02	0.09		0.00	
P	(lb/hr)	21.66	1.95003	1.95003	1,95003	1.95003	1.95003	1.95003	1.95003	1.95003	1.95003	1.95003	1.95003	1.95003	0.46001	0.46001	0.46001	0.46001	0.12	0.08	0.08	0.01	0.01	0.01	3.53006	0.18	0.05	0.07
Stack Diameter	(ft)	6.649934	3.580052	3.580052	3.580052	3.580052	3.580052	3.580052	3.580052	3.580052	3,580052	3.580052	3.580052	3.580052	0.003281	0.003281	0.003281	0.003281	0.330052	4	0.25	0.399934	0.399934	0.399934	0.003281	1.529856	1.660105	0.003281
Exit Velocity §	(tps)	20.6105	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	0.003281	326.4009	18.59908	0.003281	0,003281	0.003281	0.003281	0.003281	108.3005	22.20144	0.003281
Temperature E) (၁)	307.22	51.67	51.67	51.67	51.67	51.67	51.67	51.67	51.67	51.67	51.67	51.67	51.67	65.56	80	75	64.44	20	20	20	32.22	32.22	32.22	43.33	20	179.44	20
Stack Height	(ft)	34.91995	45.58005	45.58005	45.58005	45.58005	45.58005	45.58005	45,58005	45.58005	45.58005	45.58005	45,58005	45.58005	36	36	36	36	38.75	39,5899	33,91995	35.37992	34,58005	34.58005	39,41995	37.41995	41,41995	44.08005
Base Elevation		1497	1496	1497	1497	1496	1497	1497	1497	1497	1497	1497	1497	1497	1496	1497	1497	1497	1496	1496	1496	1497	1497	1497	1497	1496	1497	1497
Northing (Y) Base	(m) (m)	4881756	4881771	4881765	4881775	4881780	4881769	4881778	4881783	4881765	4881769	4881775	4881778	4881783	4881754	4881754	4881754	4881754	4881741	4881758	4881751	4881898	4881890	4881883	4881745	4881756	4881742	4881872
Easting (X)	(m)	402339	402391	402382	402382	402391	402382	402382	402382	402372	402372	402372	402372	402372	402353	402358	402370	402380	402406	402395	402410	402330	402345	402352	402357	402410	402340	402347
LLÌ		from	7	3	マ	S	ယ	_	∞	တ	10	down drive	12	5	7	5	9	17	200	0	20	21	22	23	24	25	26	27

Appendix B Proposed Scrubber Information

DESIGN CONDITIONS

INLET DATA:	Design	Future
Gas Volume (ACFM) Gas Weight (#/hr) Water Vapor Content (% volume) Gas Temperature (° F) Gas Pressure (inches WC) Wet Molecular Weight (#/# mol) Gas Density (#/ft3) Particulate (lb/hr) SO2 (lb/hr)	55,090 136,310 8 350 4 29.305 0.0412 Unknown 264	55,110 136,423 8 350 4 29.318 0.0413 Unknown 377
OUTLET DATA: Gas Volume (ACFM) Gas Weight (#/hr) Water Vapor Content (% volume) Gas Temperature (° F) Gas Pressure (inches WC) Wet Molecular Weight (#/# mol) Gas Density (#/ft3) Particulate (gr/dscf) SO2 (lb/hr)	42,951 143,104 15.1 123.2 0 28.4 0.0555 Unknown 26.4	42,955 143,120 15.1 123.2 0 28.4 0.0555 Unknown 37.7

OPERATING DATA

Gas Pressure:

Pressure into scrubber (inches WC)	4
Pressure drop across absorber (inches WC)) 4

Liquid Rates:

Absorber Recycle Flow (GPM)	2170	2170
Absorber Spray Pressure (PSIG)	25	25
Mist Eliminator Flow (GPM intermittent)	35	35
Mist Eliminator Pressure (PSIG)	30	30
Bleed Flow (GPM)	6.8	9.7
Water Evaporation (GPM)	14	14
Lime Slurry @ 20% (GPM)	3.72	5

Pumps:

Recycle Pump Head (FT)	150
Recycle Pump Power Consumption (BHP)	110
Recycle Pump Motor Size (HP)	150
Recycle Pump Motor Speed (RPM)	1200
Chemical Feed Pump Head (FT)	70
Chemical Feed Pump Motor Size (HP)	2.5
Bleed Pump Head (FT)	70
Bleed Pump Motor Size (HP)	2.5

ABSORBER DESCRIPTION

- 1. SPRAY ABSORBER- 3/16" 316L construction with a 317LM inlet, four banks of 316L spray headers, Bete 316 SS ST spray nozzles with stellite tips and two chevron mist eliminators with wash headers. Approximately 9'-6" diameter X 45'-0" tall.
- 2. RECYCLE/ FORCED OXIDATION TANK- 3/16" and 1/4" thick 316L with 304L stainless steel stiffeners. Approximately 13'-0" diameter X 22'-0" tall. Sized for 8-minute retention.

EMISSION GUARANTEE

When operated in accordance with the Design Conditions and Operating Data specified in this document and the Operating and Maintenance Manual provided, the scrubber will performance will be:

Remove 90% of the inlet SO2, have an instantaneous emission of not more than 0.2 pounds per million BTU of heat input.

We are unable to provide guarantees for particulate.

If guarantee tests are not completed within 3 months after start-up of 12 months after shipment, whichever occurs first, this Emission Guarantee shall be deemed fulfilled. This assumes delay is for reasons that are not the fault of ISS

